Supreme Court, U.S
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No.

IN THE

Supreme Court of the United States

ZOLTEK CORPORATION,

Petitioner,

v.

UNITED STATES OF AMERICA,

Respondent.

On Petition for Writ of Certiorari to the United States Court of Appeals for the Federal Circuit

PETITION FOR WRIT OF CERTIORARI

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QUESTIONS PRESENTED

Patent infringement under 35 U.S.C. § 271(a) includes "us[ing] * * * any patented invention, within the United States." Patent infringement under 35 U.S.C. § 271(g) includes "import[ing] into the United States or * * * us[ing] within the United States a product which is made by a process patented in the United States." Where a patented invention is "used or manufactured by or for the United States" 28 U.S.C. § 1498(a) provides that the "owner's remedy shall be by action against the United States in the United States Court of Federal Claims for the recovery of his reasonable and entire compensation for such use or manufacture." Under 28 U.S.C § 1498(c), § 1498 does "not apply to any claim arising in a foreign country."

Where a government-authorized contractor performed some or all of the steps of a patented process outside the United States, but the products of that process were imported into and used in the United States by and for the United States, the questions presented by this Petition are:

1. Whether conduct by the government through its authorized contractors that would otherwise constitute patent infringement under § 271(g) or § 271(a) is a taking of property subject to the Fifth Amendment?

2. Whether a patent-holder can seek compensation in the Court of Federal Claims for such otherwise infringing conduct either: (A) under § 1498, notwithstanding that some or all steps of the process were performed outside the United States; or, if not, (B) as a claim for just compensation under the Fifth Amendment cognizable pursuant to the Tucker Act, 28 U.S.C. § 1491(a)?

PARTIES TO THE PROCEEDINGS BELOW

Petitioner Zoltek Corporation ("Zoltek") was the appellee and cross-appellant in the Court of Appeals and the plaintiff in the Court of Federal Claims. Zoltek Corporation is 100% owned by Zoltek Companies, Inc., a publicly traded company.

Respondent the United States ("Government" or "U.S.") was the appellant and cross-appellee in the Court of Appeals and the defendant in the Court of Federal Claims.

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PETITION FOR WRIT OF CERTIORARI

Petitioner Zoltek Corporation ("Zoltek") respectfully petitions for a writ of certiorari to review the judgment of the United States Court of Appeals for the Federal Circuit.

OPINIONS BELOW

The opinion of the Court of Federal Claims ("CFC") addressing plaintiff's claims under 28 U.S.C. § 1498(a) is published at 51 Fed. Cl. 829 and is attached as Appendix B (pages B1-B19). The opinion of the CFC addressing the availability of a Fifth Amendment takings claim and denying the government partial summary judgment is published at 58 Fed. Cl. 688 and is attached as Appendix C (pages C1-C41). The decision of the Federal Circuit affirming the CFC's rejection of the statutory claims and reversing as to the availability of a takings claim is published at 442 F.3d 1345 and is attached as Appendix A (pages A1-A68). The Federal Circuit's denial of rehearing and rehearing *en banc* is published at 464 F.3d 1335 and is attached as Appendix D (pages D1-D9).

JURISDICTION

The Federal Circuit issued its opinion on March 31, 2006 and denied rehearing and rehearing *en banc* on September 21, 2006. The Chief Justice granted petitioner an extension of time to file this petition through January 19, 2007, and a further extension through February 18, 2007, which, per Supreme Court Rule 30.1, extends through February 20, 1987. This Court has jurisdiction pursuant to 28 U.S.C. § 1254(1).

CONSTITUTIONAL AND STATUTORY PROVISIONS INVOLVED

The Fifth Amendment provides, in relevant part:

> [N]or shall private property be taken for public use, without just compensation.

U.S. CONST., AMEND. V.

Section 154(a)(1) of the Patent Act, 35 U.S.C. § 154(a)(1), provides, in relevant part:

> Every patent shall contain * * * a grant to the patentee, his heirs or assigns, of the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States, and if the invention is a process, of the right to exclude others from using, offering for sale, or selling throughout the United States, or importing into the United States, products made by that process * * *.

Section 261 of the Patent Act, 35 U.S.C. § 261, provides, in relevant part:

> Subject to the provisions of this title, patents shall have the attributes of personal property.

Section 271(a) of the Patent Act, 35 U.S.C. § 271(a), provides, in relevant part:

> [W]hoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefore, infringes the patent.

Section 271(g) of the Patent Act, 35 U.S.C. § 271(g), provides, in relevant part:

> Whoever without authority imports into the United States or offers to sell, sells, or uses within the United States a product which is made by a process patented in the United States shall be liable as an infringer, if the importation, offer to sell, sale, or use of the product occurs during the term of such process patent.

The Tucker Act, 28 U.S.C. § 1491, provides, in relevant part:

> (a)(1) The United States Court of Federal Claims shall have jurisdiction to render judgment upon any claim

> against the United States founded either upon the Constitution, or * * * upon any express or implied contract with the United States, or for liquidated or unliquidated damages in cases not sounding in tort.

Section 1498(a) of Title 28 of the United States Code provides, in relevant part:

> Whenever an invention described in and covered by a patent of the United States is used or manufactured by or for the United States without license of the owner thereof or lawful right to use or manufacture the same, the owner's remedy shall be by action against the United States in the United States Court of Federal Claims for the recovery of his reasonable and entire compensation for such use and manufacture. * * *
>
> For the purposes of this section, the use or manufacture of an invention described in and covered by a patent of the United States by a contractor, a subcontractor, or any person, firm or corporation for the Government and with the authorization or consent of the Government, shall be construed as use or manufacture for the United States.

Section 1498(c) of Title 28 of the United States Code provides:

> The provisions of this section shall not apply to any claim arising in a foreign country.

STATEMENT OF THE CASE[1]

1. Petitioner Zoltek manufactures sophisticated materials produced from carbon fiber. Zoltek holds U.S. Patent No. RE 34,162 (the " '162 Patent"), which claims a method for producing carbon-fiber sheets having properties useful in military applications, such as providing stealth qualities to aircraft. The patented method uses partially carbonized fibers that are then processed into sheets for use on military aircraft.

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[1] Unless otherwise noted, the facts are taken from the decisions below.

As relevant to this case, Lockheed Martin Corporation ("Lockheed") and its subcontractors used Zoltek's patented process to produce carbon-fiber sheets and imported such materials into the United States for use in making the F-22 Fighter Plane pursuant to a contract with the government.

Under 28 U.S.C. § 1498(a), Lockheed's "use or manufacture of [a patented] invention" is "construed as use or manufacture for the United States." Section 1498(a) further provides that whenever a patented invention "is used or manufactured by or for the United States without license of the owner thereof * * * the owner's remedy shall be by action against the United States in the [CFC] for the recovery of his reasonable and entire compensation for such use or manufacture."

2. Pursuant to § 1498(a), Zoltek brought an action against the United States in the CFC seeking compensation for Lockheed's infringement of Zoltek's patent. The First Amended Complaint addressed the use of Zoltek's process to produce, import, and use two types of carbon-fiber sheets. App. A4-5.[2] The first type at issue involved Nicalon® silicon carbide fibers produced and formed into sheets in Japan, which were then imported into the United States. The second type at issue involved Tyranno® silicon carbide fibers produced in Japan and imported into the United States, and then formed into sheets in the United States. Both types of sheets were then used on the F-22 Fighter Plane in the United States.

The government sought partial summary judgment on Zoltek's claims under § 1498(a), arguing that the accused processes were used, in whole or in part, outside the United States and thus the claims were excluded from § 1498 by § 1498(c) as "claim[s] arising in a foreign country."

3. On March 14, 2002, the CFC ruled that, per § 1498(c), § 1498(a) does not apply to "claims arising in a foreign coun-

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[2] Zoltek's complaint also addressed infringing activities in connection with the B-2 Bomber. Those activities are not relevant to this petition.

try," and that a claim for the "use" of a patented process arises in a foreign country where *any* step in the process is performed in a foreign country. App. B8, B13.[3] Although recognizing that the "general purpose of § 1498 was to provide a cause of action against the government for patent and copyright infringement that reflected causes of action against private parties," App. B10-B11, the CFC rejected Zoltek's argument that § 1498(a) should be construed to apply to all forms of direct infringement, including infringement by importation and use of the products of a patented process under 35 U.S.C. § 271(g), and not merely to infringement by domestic use of the process itself under § 271(a). App. B13-15.

Instead, the CFC held that because § 1498 was adopted before Congress added § 271(g) to the Patent Act, there was a "legislative gap" such that § 1498(a) only covered infringement under the pre-existing § 271(a), but not infringement under § 271(g). The CFC reasoned that it was unable to fill that gap because it lacked sufficient evidence that the coverage of § 1498 was intended to expand with the expansion of infringement under 35 U.S.C. § 271. App. B15-B17.[4]

Having determined that § 1498(c) precluded Zoltek's cause of action under § 1498(a) for infringing "use" insofar as any step of its patented processes was performed outside the United States, the CFC nonetheless held that other forms of

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[3] The CFC held that the phrase "arising in a foreign country" in § 1498(c) had the same meaning as the phrase "within the United States," a phrase that limits infringement by use or manufacture of an invention under § 271(a). App. B7 n. 7. Similar language appears in § 271(g) limiting infringement by importation or use of the *products* of a patented process, but such language applies only to the location where such *products* were imported or used, regardless where they were manufactured.

[4] Despite its conclusion that § 1498(a) did not apply to claims under § 271(g), the CFC nonetheless stated that Zoltek could not sue Lockheed under § 271(g) because the very same language of § 1498 that did not apply to Zoltek's claims nonetheless *did* apply to those claims for purposes of immunizing Lockheed from such claims. App. B4 nn. 4 & 5.

patent infringement by the government could constitute a Fifth Amendment taking. App. B18-B19. It thus ordered further briefing on whether the alleged infringement here constituted a Fifth Amendment taking and whether its construction of § 1498(c) therefore violated the Fifth Amendment.[5]

4. On December 9, 2003, th CFC ruled that the government's actions, if proven, would constitute a taking under the Fifth Amendment and that it had jurisdiction under the Tucker Act, 28 U.S.C. § 1491, to hear a claim for just compensation not covered by § 1498. It thus denied the government's motion for partial summary judgment. App. C2.

After reiterating its earlier ruling that § 1498 only applied to claims for use of a process where all of the steps of that process were performed inside the United States, and finding that such construction meant that § 1498 did not cover Zoltek's claims in connection with the Nicalon® and Tyranno® fiber sheets, the CFC recognized the "curious position" now facing Zoltek: Although Zoltek has an exclusive property right in its patented process and in the importation and use of the products thereof, § 1498 immunizes Lockheed against such claims and yet simultaneously the same provision and language does not cover those claims for purposes of providing compensation. App. C4-C5.

The CFC then undertook an extensive review of the cases from this Court and others and concluded that patents are property rights and government activity that would otherwise infringe patent rights, but that is not covered by § 1498, con-

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[5] The CFC also sought further briefing on where the Nicalon® fiber sheets were manufactured, a question not resolved by the evidence then before the court. The Tyranno® fiber sheets at issue were shown to be partially manufactured abroad, imported into the United States, and then assembled and used in the United States.

stitutes a taking of a compulsory license, subject to a claim under the Fifth Amendment. App. C17-C26.[6]

The CFC rejected the government's claim that there was no taking because § 1498 narrowed the *scope* of patent rights by failing to provide compensation for conduct not covered therein. It instead held that Zoltek's property rights were defined by the substantive grant of rights in the Patent Act, including the rights regarding importation and use of *products* made by patented processes set forth in 35 U.S.C. §§ 154 and 271(g). App. C23 & n. 19. Section 1498, by contrast, only provides a "remedy" for violation of an otherwise existing patent right, does not "*grant* the government anything" or limit the "metes and bounds" of Zoltek's patent rights, and hence does not negate the *existence* of property rights not covered therein. App. C23-26 (emphasis in original).

Addressing this Court's decision in *Schillinger* v. *United States*, 155 U.S. 163, 169 (1894), which held that a particular claim for patent infringement against a government contractor sounded in tort and hence was not within the grant of jurisdiction under the Tucker Act, the CFC held that *Schillinger* was no longer good law and that for over 80 years a claim for government patent infringement has been deemed a Fifth Amendment takings claim, over which the Tucker Act provides jurisdiction. App. C26-C30 (discussing, *inter alia*, Justice Harlan's dissent in *Schillinger*, the adoption in response to *Schillinger* of the 1910 precursor to § 1498, this Court's decision in *Crozier* v. *Fried, Krupp Aktiengesellschaft*, 224 U.S. 290 (1912), and this Court's earlier decision in *James* v. *Campbell*, 104 U.S. 356, 357-58 (1882)). The CFC concluded that "Congress and the Supreme Court now see acts of the U.S. government that between private parties would be patent infringement as eminent domain takings." App. C31.

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[6] The CFC also addressed a side-issue regarding 19 U.S.C. § 1337(*l*), which deals with importation of infringing articles, and held that § 1337 had no affect on this case. App. C15. That section is not at issue here.

Finally, the CFC rejected the notion that the limited statutory remedies provided in § 1498 implicitly repealed its jurisdiction under the Tucker Act over the constitutional remedies for takings not covered by § 1498. Finding that "the Tucker Act can provide jurisdiction to this Court without conflicting with § 1498," and citing this Court's decision in *Ruckelshaus* v. *Monsanto*, 467 U.S. 986, 1017 (1984), for the proposition that such implied partial repeals of the Tucker Act are disfavored, the CFC concluded that the two sources of jurisdiction, read together, "both confer jurisdiction on this court to hear Zoltek's claim, albeit for different rights." App. C32-C34.

The CFC then granted Zoltek leave to file a Second Amended Complaint in order to add a count for a Fifth Amendment taking. App. C40-C41.

The CFC certified both the statutory and constitutional issues for interlocutory appeal, both parties appealed, and the Federal Circuit accepted jurisdiction. App. A1.

5. On March 31, 2006, the Federal Circuit, *per curiam*, affirmed in part and reversed in part, in favor of the government on both issues on appeal. Judges Dyk and Gajarsa each issued a separate concurring opinion. Judge Plager dissented.

The *per curiam* opinion affirmed the CFC's initial holding that Zoltek's claims were not covered by § 1498(a), though it did so on slightly different grounds. The court began with the implicit and erroneous suggestion that a patent-holder's *only* "judicial recourse against the federal government, or its contractors, for patent infringement, is set forth and limited by" § 1498. App. A6. It then quoted its earlier decision in *NTP, Inc.* v. *Research in Motion, Ltd.*, 418 F.3d 1282, 1316 (CA Fed. 2005), to hold that "'[d]irect infringement under 35 U.S.C. § 271(a) is a necessary predicate for Government liability under § 1498,'" and that a "'process cannot be used "within" the United States as required by § 271(a) unless each of the steps is performed within this country.'" App. A6. Rather than relying on the territorial exclusion contained in

§ 1498(c), as the CFC had done, the court imported the territorial limits of § 271(a) directly into § 1498(a) itself and held that because some or all of the steps of the patented process were performed outside the United States, government "liability does not exist pursuant to § 1498(a)." App. A7.

The *per curiam* opinion also reversed the CFC's holding that Zoltek could assert a Fifth Amendment takings claim under the Tucker Act and found that this Court's 1894 decision in *Schillinger*, that a particular claim for patent infringement by a government contractor sounded in tort and hence could not be brought against the United States under the Tucker Act, remained the law and had not been overruled. App. A7. The court distinguished this Court's subsequent 1912 decision in *Crozier* as not involving the Tucker Act, and only discussing the potential for filing in the Court of Claims under the then-newly enacted 1910 Act (the precursor to § 1498). App. A8. The court below viewed *Crozier* as endorsing the description of the law in *Schillinger* and argued that passage of the 1910 Act confirmed that the right to sue the government for patent infringement did not "already exist[] under the Fifth Amendment" because otherwise the added jurisdiction would have been unnecessary. App. A9.

The court rejected the CFC's discussion of the subsequent century of takings jurisprudence, arguing that patent rights were not "property" protected by the Fifth Amendment, but rather were "a creature of federal law" protected only by such relief as the federal government saw fit to grant under § 1498. App. A10-A11.[7] It distinguished inverse condemnation and regulatory takings claims, which are covered by the Tucker Act and not barred as torts, with the argument that "the 'tak-

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[7] Although seeming to recognize the inconsistency between its view of patents and this Court's holding in *Monsanto* that government interference with trade secrets could constitute a taking, the court held that because *Monsanto* did not expressly overrule *Schillinger*, the earlier case remained controlling law.

ing' of a license to use a patent creates a cause of action under § 1498," and allowing a takings claim under the Tucker Act would render § 1498 "superfluous." App. A11.

In a concurring opinion, Judge Gajarsa concluded that while the panel was bound by *NTP* regarding the scope of § 1498(a), *NTP* was wrongly decided. App. A12-A20. He argued that § 1498(a) is neither identical to nor limited by § 271(a), and that an interpretation incorporating the provisions of § 271(a) into § 1498(a) would render § 1498(c) unnecessary. App. A16-A17. Judge Gajarsa would have reached the same result, however, by holding, as the district court did, that § 1498(c) excludes coverage for infringing use of a patented process where some or all steps of the process are performed outside the United States. App. A21.

In another concurring opinion, Judge Dyk disagreed with Judge Gajarsa and supported applying *NTP* to incorporate the territorial limits of § 271(a) into § 1498(a). App. A37-A42. Curiously, he noted that the 1918 amendments to the 1910 Act, which extended the Act's coverage to infringing conduct by authorized government contractors in addition to conduct by the government itself, "confirm that the purpose of the statute was simply to obligate the United States to the same extent as private parties." App. A40. Judge Dyk quoted this Court's decision in *Richmond Screw Anchor Co.* v. *United States*, 275 U.S. 331, 343, 345 (1928), for the propositions that the intention of the 1918 amendments was "'to relieve the contractor entirely from *liability of every kind* for the infringement of patents in manufacturing anything for the government,'" to substitute a remedy against the United States for the patent owner's "'reasonable and entire compensation,'" and that in "'attempt[ing] to take away from a private citizen his lawful claim for damage to his property by another private person which but for this act he would have against the private wrongdoer[,] * * * [w]e must presume that Congress in the passage of the act of 1918 intended to secure to the owner

of the patent the *exact equivalent* of what it was taking away from him.'" App. A40-A41.[8]

Judge Dyk also rejected the takings analysis of the CFC and the dissent, arguing that patent rights are "creatures of federal statute," the right to compensation under § 1498(a) is no broader that the rights against a private party under § 271(a), and hence there is "no taking resulting from the refusal to recognize a greater right against the government." App. A42.

Judge Plager dissented. Viewing this case to be of "major significance to our understanding of the Constitutional obligations of the United States," App. A42-A43, he explained that the *per curiam* opinion misconstrued this Court's decision in *Schillinger* and ignored nearly 80 years of holdings by this Court that a takings claim for just compensation is a separate and independent cause of action under the Fifth Amendment, jurisdiction over which is provided by the Tucker Act. App. A50-A54. Regarding *Schillinger*'s treatment of the patent infringement in that case as a tort, Judge Plager noted that it was not until *Jacobs* v. *United States*, 290 U.S. 13 (1933), that this Court recognized that the Fifth Amendment itself provided "a separate, non-statutory, constitutional basis for takings remedies," and that the Tucker Act's provision of jurisdiction for such constitutional claims was "separate from its other bases." App. A52. He further quoted *Jacobs*, 290 U.S. at 16, for the proposition that the absence of a statutory basis for compensation was irrelevant because:

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[8] Judge Dyk inexplicably stated he had no occasion to consider whether suit could be brought against the government for conduct violating § 271(g), App A41 n. 4, even though such section was *precisely* the subject of the CFC's holdings on the limited scope of § 1498 and the availability of a takings claim. App. B4 n. 4, B17, C5 & n. 6, C31-C32, C38. The *per curiam* opinion likewise resolved precisely such issue in affirming the CFC's holding that § 1498 was limited to conduct violating § 271(a) and in reversing the CFC's holding that § 271(g) could provide the property rights that formed the basis of a takings claim.

> The form of the remedy did not qualify the right. It rested on the Fifth Amendment. Statutory recognition was not necessary. A promise to pay was not necessary. Such a promise was implied because of the duty to pay imposed by the amendment. The suits were thus founded upon the Constitution of the United States.

App. A52-53 (Plager emphasis omitted). After reviewing additional cases where regulatory takings and inverse condemnations were cognizable under the Tucker Act notwithstanding their origins in tort, he concluded that whatever relevance *Schillinger* may have had to constitutional takings and Tucker Act jurisdiction as applied to contracts and tort claims, "it has none now." App. A54. Addressing the majority's "remarkable view" of the Constitution that because there "is no remedy on these facts under § 1498, there is no right either," Judge Plager observed that arguing that "§ 1498 successfully cabined the Constitution is the reverse of the understanding that the Constitution trumps legislation." App. A55.

Regarding Zoltek's claim for compensation under § 1498(a), Judge Plager, like Judge Gajarsa, rejected the direct incorporation of § 271(a) into § 1498(a), and rejected the proposition that § 1498(c)'s exclusion for claims "arising in a foreign country" applied to the performance of a single step in a multi-step patented process outside the United States. App. A57-A63. He also concluded that such an interpretation would frustrate the purpose of the statute to compensate patent holders for government takings, and, insofar as it allowed § 1498(a) to provide less than just compensation for otherwise actionable patent infringement, "would be unconstitutional." App. A66-A67.

Zoltek petitioned for rehearing and rehearing *en banc*.

6. On September 21, 2006, the Federal Circuit denied rehearing and rehearing *en banc*. App. D1-D7. Judge Newman dissented from the denial of rehearing *en banc*, disputing the panel's "apparent rejection of the premise that patents are

property subject to the Fifth Amendment." App. D3. Referring to "almost a century of precedent" and the legislative history of the 1910 Act that confirmed that government infringement of a patent constitutes a taking of property, she argued that the panel's reliance on *Schillinger* "is almost a century out of date." App. D3-D6. And citing this Court's treatment of trade secrets in *Monsanto*, she noted that the decision below "produces the anomalous result that patent property receives less protection from the Constitution than other forms of property" and concluded that the denial of jurisdiction in the CFC to hear the claims in this case "is contrary to clear statutory text and long-resolved application of constitutional remedy." App. D6-D7.

7. This petition for certiorari followed.

REASONS FOR GRANTING THE WRIT

Certiorari should be granted because the decision below strips an entire class of property owners – patent holders – of their Fifth Amendment right to just compensation for the taking of their patent rights. Under the Federal Circuit's decision, the government, either itself or through its authorized contractors, is free to use a patented process, and to import and use the products of such process, without compensation if any step of the accused process is performed outside the United States. Identical infringing activity by a wholly private party would result in liability for patent infringement.

The decision below conflicts with numerous decisions of this Court, of the Federal Circuit, and of the predecessor Court of Claims recognizing that patent rights are property that is "taken" by otherwise infringing government conduct, and that takings claims are within the Tucker Act's grant of jurisdiction.

Furthermore, the Federal Circuit's limiting construction of § 1498 to deny petitioner any statutory rights to compensation for the government-authorized infringement here reflects deep division within the Federal Circuit, undermines Congress'

intent to live up to its Fifth Amendment obligations, and unnecessarily forced the court to address serious constitutional issues that could have been avoided by a more sensible statutory construction.

Because of the significant role that patents occupy in the economy and the substantial governmental abuse of its takings power sanctioned by the decision below, this petition presents vitally important questions on which this Court should grant a writ of *certiorari*.

I. THIS PETITION RAISES IMPORTANT NATIONAL ISSUES THAT SHOULD BE DECIDED BY THIS COURT.

Because the Federal Circuit is the sole court of appeals that can hear patent infringement and takings claims against the federal government and its agents, the decision below denying statutory or constitutional compensation for a wide class of government patent infringement is of tremendous national importance and will have a devastating national effect.

Numerous companies and entire industries have developed over the decades to meet the technological needs of the federal government, particularly in the area of defense. In Fiscal 2001, the government purchased more than $143 billion of equipment and services from the top 100 defense contractors. In Fiscal 2003, the figure was more than $198 billion.[9] A substantial portion of such purchases was and is protected by United States patents. By way of example, between 2001-06, five of the large defense contractors collectively were issued 7,678 U.S. patents.[10] Numerous other contractors, subcontractors, and their competitors likewise rely on

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[9] *See* Government Executive Magazine website, www.govexec.com.

[10] Between 2001-06, the number of U.S. patents issued to the following major defense contractors, as reported by Delphion, were: (1) Northrop Grumman Corp. – 2,063; (2) Lockheed Martin Corp. – 1,749; (3) Boeing – 2,063; (4) Raytheon - 1,583; and (5) General Dynamics Corp. – 220.

patented products and processes to provide for defense and other government needs.

The Federal Circuit's decision renders those patents second-class property not entitled to Fifth Amendment protection, barring recourse to the CFC under § 1498 and the Tucker Act. According to the Federal Circuit, the myriad patents driving the defense and other industries are no longer matters of property, but instead are matters of government grace, to be taken with or without compensation as the government sees fit.

The negative economic consequences of the Federal Circuit's decision will be widespread and substantial. This case alone involves a taking of a compulsory license worth more than $1 billion. And the decision below actively invites numerous such takings in the future. As Judge Plager noted in his dissent below, allowing the government, without liability, to appropriate the products of a patented process merely by performing "any one step" of such process outside the United States "is an invitation to strategic conduct if ever there was one." App. A63. Indeed, by encouraging the government and its contractors to shift infringing activities abroad, the Federal Circuit's decision causes substantial harm to domestic industries producing items used or desired by the government.

By reducing the security, and hence the value, of patent property, patent-driven industries that provide technologies useful to the government will become far riskier endeavors, causing capital to flow out of those industries and into other, less risky, investments. Many patent-dependent industries are highly capital intensive, with long time-horizons required for product development. Stripping patent holders of their constitutionally protected property rights will lead inevitably to a substantial chilling effect on investment in these high-risk areas where federal government takings are a real possibility, and the development of innovative products and processes to meet government needs will suffer accordingly.

Nor are the ramifications of the decision below limited to the defense industry. Numerous other industries likewise rely on patented products and processes coveted by the government. For example, the pharmaceutical industry may be particularly vulnerable to loss of protection for patent property rights as against the government. Between 2001-06, five of the large pharmaceutical manufacturers were issued 7,653 U.S. patents.[11] The government's desire to take or break the patent for Bayer's antibiotic Cipro® is well-documented.[12] Similarly, the government's interest in demanding compulsory licenses from drug-makers at fees below what would be just compensation under the Fifth Amendment has been growing in light of the Medicare Prescription Drug Act enacted in 2003. That program has an estimated ten-year cost through 2013 of $500 - 600 billion.[13] Under the Federal Circuit's decision, the government could simply legislate that pharmaceutical manufacturers accept whatever level of compensation it chooses for the drugs it takes or buys, without

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[11] Between 2001-06, the number of U.S. patents issued to the following pharmaceutical companies, as reported by Delphion, were: (1) Pfizer Corp. – 2,721; (2) Eli Lilly and Co. – 547; (3) Glaxo Smith Kline Corp. – 1,554; (4) Merck & Co. – 1,754; and (5) Bristol Myers Squibb – 1,037.

[12] Jill Carroll & Ron Winslow, *Bayer to Slash Price U.S. Pays for Cipro Drug*, Wall St. J., October 25, 2001 at A3 (discussing "high-stakes threat by Tommy Thompson, H.H.S. Secretary, to break the Bayer Patent for Cipro if he didn't get the price he wanted"); Shankar Vedantam, *Cipro is Not the Only Pill That Fights Anthrax* Wash. Post, October 17, 2001 at A20 (Reporting public appeal by Senator Schumer for "the Government [to] suspend Bayer's patents and allow generic companies to add to the supply')."

[13] Robert Pear, *Democrats Demand Inquiry into Charge by Medicare Officer*, New York Times, March 14, 2004. On January 12, 2007, the House of Representatives passed the Medicare Prescription Drug Price Negotiation Act, H.R. 4, that requires the Secretary of HHS to negotiate the bulk purchase of pharmaceuticals for individuals participating in the Medicare and/or Medicaid programs.

concern for the Fifth Amendment's constraint of just compensation.

The Federal Circuit's decision also undermines the entire patent system by treating patents as second-class, constitutionally unprotected, property. To the extent possible, inventors thus will be incented to protect their inventions as trade secrets in order to receive the Fifth Amendment protection provided by this Court's decision in *Monsanto*. The decision below thus undermines the public disclosure and other benefits of the patent system by driving inventors and investors toward less socially beneficial means of protecting their intellectual property. Such an affront to the economy and to the patent system amply warrants review by this Court.

II. THE DECISION BELOW CONFLICTS WITH NUMEROUS DECISIONS OF THIS COURT AND OTHERS, WHICH HOLD THAT PATENTS ARE PROPERTY PROTECTED BY THE TAKINGS CLAUSE OF THE FIFTH AMENDMENT.

Flying in the face of statute and precedent, the decision below held that patent rights are not subject to the Fifth Amendment. That proposition is shockingly wrong.

A. Patent Rights Are Property.

The Fifth Amendment to the United States Constitution states, in pertinent part:

> [N]or shall private property be taken for public use, without just compensation.

Pursuant to its constitutional power under Article I, section 8, clause 8, Congress has provided for patents since 1790. The current Patent Act, as enacted in 1952 and amended thereafter, provides that,

> [s]ubject to the provisions of this title, *patents shall have the attributes of personal property.*

35 U.S.C. § 261 (emphasis added).[14] It is difficult to imagine anything simpler or more clearly articulated in the law than the proposition that patents are property.

This Court has likewise recognized, for over a century, that patents constitute property. *See Consolidated Fruit-Jar Co.* v. *Wright*, 94 U.S. (4 Otto) 92, 96 (1876) ("A patent for an invention is as much property as a patent for land. The right rests on the same foundation and is surrounded and protected by the same sanctions."); *Cammeyer* v. *Newton*, 94 U.S. (4 Otto) 225, 234-35 (1876) (rejecting sovereign immunity defense because "an invention [secured by a valid letter-patent] is property in the holder of the patent, and * * * is as much entitled to protection as any other property * * * [¶] Public employment is no defense [sic] to the employee for having converted the private property of another to the public use without his consent and without just compensation.") (citations omitted); *James* v. *Campbell*, 104 U.S. 356, 357-58 (1882) (rejecting sovereign immunity defense; "That the Government of the United States when it grants letters-patent * * * confers upon the patentee an exclusive property in the patented invention which cannot be appropriated or used by the Government itself, without just compensation, any more than it can appropriate or use land which has been patented to a private purchaser, we have no doubt.").[15]

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[14] Patents are assigned, licensed, mortgaged, and otherwise hypothecated. Transfers and encumbrances on patents are recorded. 35 U.S.C. § 261 ¶4. Bankruptcy statutes treat patents as property. 11 U.S.C. § 101 (35A); 11 U.S.C. § 365(m). They are also subject to federal taxation. *Eg.*, 26 U.S.C. § 1235 (u).

[15] *Cf. Festo Corp.* v. *Soketsu Kinzoqu Kogyokabusiki Co.*, 535 U.S. 722, 730-31, 739 (2002) ("The [temporary patent] monopoly is a property right; like any property right") (citations omitted); *Monsanto*, 467 U.S. at 1002, 1003-04 ("Trade secrets have many of the characteristics of more tangible forms of property. A trade secret is assignable. * * * A trade secret can form the *res* of a trust, * * *, and it passes to a trustee in bankruptcy."; trade secrets are property rights "protected by the Takings Clause of the Fifth Amendment.") (citations omitted); *id.* at 1002-03

The *per curiam* opinion also conflicts with prior holdings of the Federal Circuit itself, and its predecessor court, the United States Court of Claims. *See Hughes Aircraft Co.* v. *United States*, 86 F. 3d 1566, 1571 (CA Fed. 1996) (government's "unlicensed use of a patented invention is properly viewed as a taking of property under the Fifth Amendment * * *, and the patent holder's remedy for such use is prescribed by 28 U.S.C. § 1498(a)."); *Leesona Corporation* v. *United States*, 599 F. 2d 958, 964 (Ct. Cl. 1979) ("When the government has infringed, it is deemed to have 'taken the patent license under an eminent domain theory, and compensation is the just compensation required by the Fifth Amendment.'") (citation omitted); *Pitcairn* v. *United States*, 547 F.2d 1106, 1114 (Ct. Cl. 1976) ("The use or manufacture by or for the Government of a device or machine embodying any invention by a United States patent, is a taking of property by the Government under its power of eminent domain."); *see also*, App. C17-21 (second CFC opinion) (reviewing the case law in the Federal Circuit, its predecessor, and the Court of Federal Claims).[16]

(viewing "trade secrets as property is consonant with the notion of 'property' that extends beyond land in tangible goods and includes the products of an individual's 'labour and invention'") (citations omitted).

[16] The legislative history of the 1910 Patent Act also supports the existence of Fifth Amendment rights in patents. *See* App. D4-D5 (Newman, J., dissenting from denial of rehearing *en banc*) (quoting Representative Currier, Chairman of the House Committee on Patents: "The status of a patent as private property, which even the Government is prohibited from taking for public use without compensation (Amendment to Constitution, Article V) has been declared and redeclared in many opinions by the Supreme Court of the United States.") (45 *Cong. Rec.* 8755, 8769 (June 22, 1910)); *id.* at D7 (quoting Rep. Dalzell: "And every time that the United States government assumes to take forcibly, without the consent of the owner, a patented process, it violates the Constitutional provision which says that no man's property shall be taken without compensation and without due process of law.") (45 *Cong. Rec.* at 8780)).

In the face of such authority, the court below relied on this Court's 1894 decision in *Schillinger* v. *United States* for the proposition that a claim against the government for patent infringement sounds in tort, rather than under the Fifth Amendment. The court further argued that if Congress had viewed patents as "property interests under the Fifth Amendment, there would have been no need for the new and limited sovereign immunity waiver" provided in the 1910 precursor to § 1498. App. A10-A11.

Both the court's understanding of *Schillinger* and the implication it drew from Congress' passage of a statutory compensation remedy are far off the mark.

In *Schillinger*, this Court held that the patentee could not bring a claim for damages in the Court of Claims because the patent infringement therein was a tort, and the Court of Claims had no jurisdiction over tort claims. But the claim in *Schillinger* did not involve the government-*authorized* use of a patent by the contractor. Rather, it involved use by the contractor for which the government specifically disclaimed responsibility, 155 U.S. at 165, 170, and hence it is hardly surprising that this Court viewed the conduct as a private tort (for which the contractor itself was liable) as opposed to a government taking.

Since the 1918 amendments to the 1910 Act, however, the government is only substituted as a defendant for conduct by its contractors taken with "the authorization of consent of the Government." 28 U.S.C. § 1498(a). Insofar as the government accepted its substitution as defendant in this case, it cannot dispute that Lockheed's infringing conduct was authorized by the government and the government has never sought to disavow Lockheed's immunity under § 1498. Even under the rationale in *Schillinger*, such authorization would remove this case from the realm of tort and create an implied contract (under the Fifth Amendment) for compensation for such authorized infringement.

Furthermore, even aside from *Schillinger*'s inapplicability to this case, Judge Plager correctly noted that *Schillinger* was decided nearly 40 years before this Court in *Jacobs* v. *United States*, 290 U.S. 13 (1933), recognized "the identity of a separate, non-statutory, constitutional basis for takings remedies under the Fifth Amendment." App. A52.

Indeed, in *Jacobs*, this Court rejected the same argument relied upon below that limited statutory remedies somehow negate any independent claim for just compensation:

> The suits were based on the right to recover just compensation for property taken by the United States for public use in the exercise of its power of eminent domain. * * * The form of the remedy does not qualify the right. It rested upon the Fifth Amendment. Statutory recognition was not necessary. A promise to pay was not necessary. Such a promise was implied because of the duty to pay imposed by the amendment. The suits were thus founded upon the Constitution of the United States.

290 U.S. at 16; *see* App A52-A53 (Plager, J., dissenting) (discussing *Jacobs*). Thus, at least since 1933 this Court has recognized that takings claims under the Fifth Amendment sound neither in tort nor contract, but are independent claims "founded on the Constitution." *See also First English Evangelical Lutheran Church of Glendale* v. *County of Los Angeles*, 482 U.S. 304, 315-16 (1987) ("Government action that works a taking of property rights necessarily implicates 'the constitutional obligation to pay just compensation.'"; recognizing "'"the self-executing character of the Constitutional provision with respect to compensation."'") (citations omitted).

Schillinger thus can hardly stand for the proposition that patent infringement authorized by the government sounds *exclusively* in tort in that this Court had no occasion to consider it as a constitutional claim. The correct answer after *Jacobs*,

of course, is that such infringement gives rise to *both* statutory claims insofar as a statute provides compensation *and*, if uncompensated by statutory means, an independent constitutional claim.

Additionally, as the CFC and both Judges Plager and Newman correctly recognized, *Schillinger* was effectively superceded by this Court's decision in *Crozier*, which expressly characterized patent use by and for the government as the exercise of the government's power of eminent domain. 224 U.S. at 305 (wrongful conduct of an officer, if adopted by the government, becomes rightful appropriation in exercise of power of eminent domain).

In any event, insofar as *Schillinger* has the meaning imputed to it below and indeed remains technically controlling law, that is simply a further reason why the issue must be addressed by *this* Court. *Schillinger* is either inapplicable or should be overruled, and given the Federal Circuit's view of that decision, only this Court has the power to sort things out.

B. The Identical Activity in this Case, If Conducted by a Wholly Private Party, Would Constitute Infringement.

In determining the scope of particular "property" under the Fifth Amendment, this Court necessarily should look to the owner's rights as against other private parties, rather than as against the government. In this case, there is no question that the accused activity – the importation and use in the United States of *products* made by a patented *process* performed partially or entirely abroad – constitutes actionable infringement of Zoltek's patent.

As relevant to this case, the scope of Zoltek's patent rights begins with 35 U.S.C. § 154(a)(1), which provides that every patent for an invented "process" shall contain

> a grant to the patentee, his heirs or assigns * * * of the right to exclude others from using, offering for sale, or selling throughout the United States, or im-

> porting into the United States, products made by that process * * *.

In addition, 35 U.S.C. § 271(g) defines the complementary cause of action for infringement:

> Whoever without authority imports into the United States or offers to sell, sells, or uses within the United States a product which is made by a process patented in the United States shall be liable as an infringer, if the importation, offer to sell, sale, or use of the product occurs during the term of such process patent.

Regardless whether the "use" of the patented *process* occurs abroad, or whether such use of the process infringes under § 271(a), petitioner has the independent right to exclude the *products* of such foreign processes from importation into or use in the United States, and a claim for infringement under § 271(g) arises from the *domestic* importation or use of those products. *Biotechnology General Corp.* v. *Genentech, Inc.*, 80 F.3d 1553, 1560 (CA Fed. 1996); *Ajinomoto Co.* v. *Archer-Daniels-Midland Co.*, 228 F.3d 1338, 1348 (CA Fed. 2000); *Biotec Biologische Naturverpackungen GmbH & Co. v. Biocorp, Inc.*, 249 F.3d 1341, 1351 (CA Fed. 2001); *see also* App. C38 (CFC recognizing §§ 154 and 271(g) as the source of Zoltek's property rights).

Under the facts of this case, there is no question that, aside from § 1498(a) substituting the Untied States as a defendant under certain circumstances, Zoltek would have a cause of action against Lockheed or any other private party for the importation and/or domestic use of the Nicalon® and Tyrano® *products* made by its patented process, regardless whether some or all steps of the patented *process* itself were performed abroad.

By authorizing Lockheed to infringe Zoltek's patent and precluding a suit against Lockheed by substituting the United States as the defendant, the government thus has taken Zoltek's property.

III. THE DECISION BELOW ERRONEOUSLY DENIES PATENT-HOLDERS ANY RECOURSE FOR GOVERNMENT TAKINGS OF THEIR PROPERTY.

Once it is established that Zoltek's patent rights are property under the Fifth Amendment, and that the conduct of the government or its authorized agents infringed upon, and hence took, that property, all that remains is to determine what remedies are available. The Fifth Amendment, of course, provides a "self-executing" constitutional remedy by imposing a duty on the government to pay just compensation for its taking of property. An adequate statutory or legal remedy, of course, will provide the required "just compensation" and avoid the perfection of a Fifth Amendment claim. Absent adequate statutory compensation, however, the Fifth Amendment itself provides a constitutional claim for compensation.

In this case, the initial issue thus is whether § 1498 provides compensation for the taking here and, if it does not, the issue of the constitutional remedy arises. The essential point, however, is that some remedy must exist, either by statute or under the Constitution, because to deny *any* remedy whatsoever, as did the court below, would violate the Fifth Amendment.

A. Statutory Compensation for the Infringement in this Case Is Available under 28 U.S.C. § 1498.

The court below held that Zoltek lacked a claim for compensation under § 1498 because some or all of the steps of the accused processes were performed outsides the United States. While the court was deeply conflicted as to the source of such geographic limitation – whether through incorporation of § 271(a) directly into § 1498(a) or through the exclusion set out in § 1498(c) – the net result was the same. But, under a proper construction of § 1498 in light of constitutional concerns, neither of the court's rationales supports excluding a claim for compensation for the 271(g)-based infringement at issue here.

Section 1498(a) applies "[w]henever an invention described in and covered by a patent of the United States is used or manufactured by or for the United States without license of the owner thereof or lawful right to use or manufacture the same * * *." Unlike § 271(a), § 1498(a) contains no intrinsic territorial limitation. Furthermore, the language used therein is broad enough to include any infringement under any subsection of § 271, not merely infringement under § 271(a). Regardless where the conduct occurred, the only conditions for the initial applicability of § 1498(a) is the "use or manufacture" of a patented invention "by or for the United States" without "lawful right to use or manufacture the same."

Furthermore, as Judge Dyk curiously noted, and as this Court has held, the precursors to § 1948 were intended "'to relieve the contractor entirely from *liability of every kind* for the infringement of patents in manufacturing anything for the government,'" and "'to secure to the owner of the patent the *exact equivalent* of what it was taking away from him.'" App. A40-A41 (quoting *Richmond Screw Anchor*, 275 U.S. at 343, 345. There thus is ample room to conclude that, at least where the United States accepts substitution as a defendant, establishing "authorization or consent," § 1498(a) covers infringement by importation and use of in the United States of products by patented processes conducted abroad. Such claims for domestic importation and use of products plainly "arise" in the United States, rather than abroad under § 1498(c). That more sensible interpretation would make it unnecessary to reach the constitutional issue.

The Federal Circuit is painfully conflicted as to the scope of § 1498, and has unnecessarily restricted it in a manner that defeats Congress' purpose of providing a statutory mechanism to insulate its authorized contractors from "every kind" of liability for infringement and to give patent-holders exactly what had been taken away. This Court should grant certiorari and adopt a broader construction that would be consonant with Congress' statutory purpose and constitutional duty, and

that would avoid the forced resolution of a constitutional question that Congress has displayed no desire to force.

B. In the Alternative, the Tucker Act Allows a Constitutional Claim for Just Compensation under the Fifth Amendment to Be Brought in the CFC.

Alternatively, if this Court should agree that § 1498 does not provide a statutory remedy for the infringement at issue here, then such a remedy is plainly available through a direct constitutional claim for just compensation under the Fifth Amendment, cognizable in the CFC pursuant to the Tucker Act.

The Tucker Act covers "all claims founded upon the Constitution of the United States," and grants the Court of Federal Claims jurisdiction over petitioner's claim for compensation. 28 U.S.C. § 1491(a). Claims for just compensation under the Fifth Amendment are unquestionably within the purview of the Tucker Act. *See, e.g., United States* v. *Causby*, 328 U.S. 256, 267 (1946) ("If there is a taking, the claim is 'founded upon the Constitution' and within the jurisdiction of the Court of Claims to hear and determine."); *Phelps* v. *United States*, 274 U.S. 341, 343 (1927) ("Under the Fifth Amendment plaintiffs were entitled to just compensation, and * * * the claim is one founded on the Constitution.").

Insofar as the Fifth Amendment itself provides a self-executing remedy in the form of a claim for just compensation, and the Tucker Act on its face provides a forum for such remedy, the decision below was extravagantly wrong. Indeed, where the underlying infringement by Lockheed was, by definition, "authorized" by the government, there exists an implied promise by the government to pay just compensation, thus satisfying even the test in *Schillinger*.

As correctly recognized by the CFC in its second opinion:

> Thus, regarding rights created by the Patent Act other than use or manufacture, the Tucker Act can provide jurisdiction to this Court without conflicting with §1498.

> For example, although the Court does not have jurisdiction over the Plaintiff's cause of action against the U.S. for infringement of its patented process, this Court would have jurisdiction over infringement of the Plaintiff's exclusive right over use in the U.S. or importation of product made abroad by the patented process, since these rights are not found in §1498 but are found as rights in §154 of the Patent Act, enforced through §271(g) of the Act.

App. C32.

Any suggestion that § 1498 implicitly restricts jurisdiction under the Tucker Act is definitively disposed of by this Court's ruling in *Monsanto* that such implied repeals are disfavored and are not shown by the mere existence of or limits on a statutory remedy:

> In determining whether a Tucker Act remedy is available for claims arising out of a taking pursuant to a Federal statute, the proper inquiry is not whether the statute "expresses an affirmative showing of Congressional intent to permit recourse to a Tucker Act remedy," but "whether Congress has in the [statute] *withdrawn* the Tucker Act grant of jurisdiction to the Court of Claims to hear a suit involving the [statute] 'founded * * * upon the Constitution.'" *Regional Rail Reorganization Act Cases,* 419 U.S. 102 (1974) (emphasis, original).

467 U.S. at 1017. Inferring the withdrawal of Tucker Act jurisdiction over constitutional claims from the mere provision of a statutory remedy for governmental patent infringement "would amount to a partial repeal of the Tucker Act. This Court has recognized, however, that 'repeals by implication are disfavored.'" *Id.* (citation omitted); *see also*, App. C32-34 (demonstrating no conflict between § 1498 and Tucker Act jurisdiction for otherwise unprovided-for takings). Having failed to demonstrate such a disfavored partial repeal of the Tucker Act, the decision

below is simply and dangerously wrong and should be reversed.

In the end, the decision below is both of extreme national importance and spectacularly wrong. As Judge Plager concluded in dissent below:

> "This is a remarkable view of the Constitution. Can it be that Congress, by a stroke of the legislative pen, may withhold the remedies and revoke the protections given to the citizenry by the Fifth Amendment, not to mention the other articles of the Bill of Rights to the Constitution? Fortunately, no authority exists for such a radical departure for legislative preemption over Constitutional right. Wisely, Congress has never attempted to establish one, and in fact, Congress in the Tucker Act expressly provides for the Court's jurisdiction over these takings claims. To argue that Congress in enacting § 1498 successfully cabined the Constitution is the reverse of the understanding that the Constitution trumps legislation * * *."

App. A55 (Plager, J., dissenting).

CONCLUSION

For the foregoing reasons, the petition for a writ of certiorari should be granted.

Respectfully submitted,

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Dated: February 20, 2007

APPENDICES

APPENDIX A

442 F.3d 1345 (C.A.Fed.)

United States Court of Appeals, Federal Circuit.

ZOLTEK CORPORATION, Plaintiff-Cross Appellant,

v.

UNITED STATES, Defendant-Appellant.

Nos. 04-5100, 04-5102.

March 31, 2006.

Before GAJARSA, Circuit Judge, PLAGER, Senior Circuit Judge, and DYK, Circuit Judge.

Concurring opinion filed by Circuit Judge GAJARSA. Separate concurring opinion filed by Circuit Judge DYK. Dissenting opinion filed by Senior Circuit Judge PLAGER.

PER CURIAM.

The United States appeals the order of the Court of Federal Claims holding that it could assert jurisdiction over Zoltek Corporation's ("Zoltek")' s patent infringement allegations by treating the action as a Fifth Amendment taking under the Tucker Act. Zoltek cross-appeals the trial court's ruling that 28 U.S.C. § 1498(c) bars this action as arising in a foreign country. The Court of Federal Claims certified the rulings under 28 U.S.C. § 1292(d)(2), and this court accepted jurisdiction. *See Zoltek Corp. v. United States,* No. 96-166 C (Fed.Cl. Feb. 20, 2004) (certification); *see generally Zoltek Corp. v. United States,* 58 Fed.Cl. 688 (2003), *Zoltek Corp. v. United States,* 51 Fed.Cl. 829 (2002).

We conclude that under § 1498, the United States is liable for the use of a method patent only when it practices every step of the claimed method in the United States. The court therefore affirms the trial court's conclusion that § 1498 bars Zoltek's claims. However, we reverse the trial court's determination that it had jurisdiction under the Tucker Act based on a violation of the Fifth Amendment.

I.

Zoltek Corporation ("Zoltek") is the assignee of United States Reissue Patent No. 34,162 (reissued Jan. 19, 1993) to a "Controlled Surface Electrical Resistance Carbon Fiber Sheet Product" ("the Re '162 patent"). The Re '162 patent claims certain methods of manufacturing carbon fiber sheets with controlled surface electrical resistivity.[1]

Independent claim 1 is representative. After reissue, it reads:

> 1. A method of manufacturing a plurality of different value controlled resistivity***1348** carbon fiber sheet products employing a carbonizable fiber starting material; said method comprising
>
> selectively partially carbonizing previously oxidized and stabilized fiber starting material
>
> for a predetermined time period in an oxygen free atmosphere within a furnace at selected temperature values within a temperature range from 370 degrees Centigrade to about 1300 degrees Centigrade

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[1] Although the Re '162 patent also includes various product-by-process and product claims, only the method claims are at issue here. In a March 5, 2001 motion for leave to file a first amended complaint, Zoltek abandoned its allegations that the government had infringed the product claims. *See Zoltek*, 58 Fed.Cl. at 689 n. 3.

by soaking the stabilized fiber starting material at the selected temperature for the predetermined period of time

to provide a preselected known volume electrical resistivity to the partially carbonized fibers corresponding to that volume electrical resistivity value required to provide the preselected desired surface resistance value for the finished sheet products,

and thereafter processing the partially carbonized fibers into homogeneous carbon fiber sheet products having the preselected desired surface electrical resistances.

Re '162 patent, col. 8, ll. 42-66.

The method thus takes a "carbonizable fiber starting material" and requires "partially carbonizing" it. "Carbonization" as used in the Re '162 patent means "a process which involves heat treatment in an inert atmosphere which eliminates or removes all elements other than carbon." *Zoltek*, 48 Fed.Cl. 290, 293 (2000). "Partial carbonization" refers to carbonization sufficient to achieve a desired surface resistance in a sheet woven from the resulting fibers. *Id.* at 295.

Independent claim 11 describes a representative method for making such fibers and weaving them into a fiber sheet. After reissue, it reads:

11. A method of manufacturing a plurality of different value controlled resistivity carbon fiber sheet products employing carbonizable, previously oxidized and stabilized fiber starting material; said method comprising

forming an oxidized and stabilized tow, stretching and breaking the stabilized tow,

forming the stabilized stretched and broken fiber filaments into sliver comprised of,

large bundles of discontinuous filaments in an untwisted condition,

converting the sliver into roving, spinning the roving into a spun yarn, plying or twisting the spun yarn, weaving or knitting the plied and twisted spun yarn into fabric,

and selectively partially carbonizing the fabric thus formed at preselected elevated temperature values for a predetermined time period in an oxygen free atmosphere within a furnace having a continuously increasing temperature profile within the range from about 370 degrees Centigrade to about 1300 degrees Centigrade to provide a known preselected electrical volume resistivity to the partially carbonized fiber filament in the fabric corresponding to that value of electrical volume resistivity required to provide the preselected desired surface resistance for the finished fabric.

Re '162 patent, col. 9, l. 65-col. 10, l. 24.

Independent claim 15 describes a method for making and processing the fibers into paper-like sheet products. *Id.* at col. 10, l. 35-col. 11, l. 8. In short, the steps of the claimed methods are directed to "partially***1349** carbonizing" fibers, and weaving or processing them into controlled resistivity carbon fiber mats or sheets.

The relevant facts are undisputed. The United States contracted with Lockheed Martin Corporation ("Lockheed") to design and build the F-22 fighter. *Zoltek*, 51 Fed.Cl. at 831. Lockheed subcontracted for two types of silicide fiber products that it uses in the aircraft. The first is a pre-impregnated material made from Nicalon silicon carbide fibers. These fibers are partially carbonized and manufactured into sheets in Japan, which are then imported into the United States. The second is a silicide fiber mat made from Tyranno fibers. The Tyranno fibers are manufactured exclusively in

Japan, but they are processed into mats in the United States. *Zoltek*, 58 Fed.Cl. at 690.

Zoltek brought suit in the Court of Federal Claims under § 1498(a), alleging that the United States and Lockheed used the methods claimed in the Re '162 patent when Lockheed's subcontractors made the two silicide fiber products used in the F-22. Zoltek alleges that the mats and sheets were made, for the United States, using the claimed methods.

The government moved for partial summary judgment that Zoltek's § 1498(a) claims were barred by § 1498(c) because they arose in Japan. The trial court denied the motion. Although it agreed that § 1498(c) barred Zoltek's claims under § 1498(a), the trial court directed Zoltek to amend its complaint to allege a taking under the Fifth Amendment. *Id.* at 707. The trial court concluded that Zoltek could assert the infringement claims under 28 U.S.C. § 1491(a)(1) as a taking in violation of the Fifth Amendment. *Id.* at 690-91 & 695-706. The trial court certified its § 1498 analysis and its holding that Zoltek's patent infringement claims sounded in the Fifth Amendment, under § 1292(d)(2). Both parties timely sought permission to appeal. This court accepted the interlocutory appeals and has jurisdiction under 28 U.S.C. § § 1292(c)(1) and 1295(a)(3).

The issues before the court are purely questions of law. This court reviews the trial court's statutory and constitutional analysis without deference. *See Shoshone Indian Tribe of Wind River Reservation v. United States*, 364 F.3d 1339, 1345 (Fed.Cir.2004).

II.

The federal government is immune from any legal action by its sovereign immunity. *See United States v. Sherwood*, 312 U.S. 584, 586, 61 S.Ct. 767, 85 L.Ed. 1058 (1941) (stating that "[t]he United States, as sovereign, is immune from suit save as it consents to be sued"). The waiver of immunity

can be limited and conditioned by the Congress. *See United States v. Nordic Village Inc.*, 503 U.S. 30, 34, 112 S.Ct. 1011, 117 L.Ed.2d 181 (1992) (stating that the government's consent to be sued must be strictly construed in favor of the sovereign and not enlarged beyond what the language requires). A patentee's judicial recourse against the federal government, or its contractors, for patent infringement, is set forth and limited by the terms of 28 U.S.C. § 1498.[2] Section 1498(a) provides, in pertinent part:

> ***1350** Whenever an invention described in and covered by a patent of the United States *is used ... by or for the United States* without license of the owner thereof or lawful right to use or manufacture the same, the owner's remedy shall be by action against the United States in the United States Court of Federal Claims for the recovery of his reasonable and entire compensation for such use and manufacture.

Id. (emphasis added).

This court has held that "direct infringement under section 271(a) is a necessary predicate for government liability under section 1498." *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1316 (Fed.Cir.2005) (citing *Motorola, Inc. v. United States*, 729 F.2d 765, 768 n. 3 (Fed.Cir.1984)). We have further held that "a process cannot be used 'within' the United States as required by section 271(a) unless each of the steps is performed within this country." *Id.* at 1318. Conse-

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[2] As the Supreme Court recognized at least as long ago as 1881, the patentee's recourse for infringement by the government is limited by the scope of the waiver of sovereign immunity established by the Congressional consent to be sued. "If the jurisdiction of the Court of Claims should not be finally sustained [to hear an infringement action against the government], the only remedy against the United States, unless Congress enlarges the jurisdiction of that court, would be to apply to Congress itself." *James v. Campbell*, 104 U.S. 356, 359, 26 L.Ed. 786 (1881). In short, the power to limit a Congressional abuse of sovereign immunity lies in the political process rather than the judicial branch.

quently, where, as here, not all steps of a patented process have been performed in the United States, government liability does not exist pursuant to section 1498(a). We affirm the trial court's conclusion that § 1498(a) bars Zoltek's claims.

III.

We turn to the trial court's takings analysis. The Court of Federal Claims held that Zoltek could bring its action against the government under the Tucker Act, by alleging that the infringement was a taking of private property for public use under the Fifth Amendment. *See Zoltek,* 58 Fed.Cl. at 707. We reverse.

In *Schillinger v. United States,* 155 U.S. 163, 30 Ct.Cl. 480, 15 S.Ct. 85, 39 L.Ed. 108 (1894), the Supreme Court rejected an argument that a patentee could sue the government for patent infringement as a Fifth Amendment taking under the Tucker Act. *Id.* at 169, 15 S.Ct. 85. *Schillinger* remains the law.

The trial court determined that the Supreme Court "effectively overruled Schillinger *sub silentio* " in *Crozier v. Fried. Krupp Aktiengesellschaft,* 224 U.S. 290, 32 S.Ct. 488, 56 L.Ed. 771 (1912). *Zoltek,* 58 Fed.Cl. at 702. We disagree. The Court of Federal Claims, like this court, is bound by *Schillinger,* and the trial court rulings to the contrary are not viable.

Crozier involved Army weapons manufacture. Fried. Krupp was a German corporation holding patents relating to improvements in guns and gun carriages. William Crozier was the Army Chief of Ordnance and directed the manufacture of field guns and carriages for the Army. In 1907, Fried. Krupp sued Crozier in the supreme court of the District of Columbia. The company alleged that the Army's weapons manufacture was infringing Fried. Krupp patents. Although the complaint originally sought preliminary and permanent injunction, and an accounting, the company later dropped the

prayer for preliminary injunction and waived the prayer for accounting. *Crozier,* 224 U.S. at 297-99, 32 S.Ct. 488. Crozier demurred, arguing that the real party in interest was the United States, and that ***1351** the trial court lacked jurisdiction. *Id.* at 300, 32 S.Ct. 488. The trial court sustained the demurrer and dismissed. *Id.* In 1908, the Court of Appeals reversed. *Id.*

Before the Supreme Court heard argument, Congress enacted the Patent Act of 1910. *See* Pub.L. No. 61-305, 36 Stat. 851 (1910) (later codified as amended at § 1498). When it eventually heard the case, the Supreme Court reversed and remanded with instructions to dismiss so that the company could refile and proceed in the Court of Claims under the 1910 Act. *Crozier,* 224 U.S. at 309, 32 S.Ct. 488.

The contention that *Crozier* somehow overruled *Schillinger,* and recognized patent infringement as a Fifth Amendment taking, is flawed. The only question before the Supreme Court was whether the trial court had jurisdiction to enjoin the government from alleged patent infringement. Because Congress, in adopting the 1910 Act, precluded injunctive relief against the government for patent infringement, the *Crozier* court concluded that the trial court lacked the power to grant Fried. Krupp the injunctive relief it was seeking. *Id.* at 308, 32 S.Ct. 488. None of the relevant *Schillinger* issues were joined: *Crozier* was not filed in the Court of Claims, had nothing to do with the Tucker Act, did not allege a taking, and was solely in equity. Moreover, discussing the state of the law before the 1910 Act, the *Crozier* court expressly noted that no patent infringement action could be brought against the government unless in the Court of Claims under a contract or implied contract theory. *See id.* at 304, 32 S.Ct. 488. Far from "overruling" *Schillinger,* this acknowledges and endorses the rule that *Schillinger* established. The Court thus recognized that by enacting the 1910 Act, Congress "add[ed] the right to sue the United States in the court of claims" for patent infringement. *Id.* If the right al-

ready existed under the Fifth Amendment, as the trial court here suggests, then this analysis in *Crozier* would be flawed.

Indeed, the Supreme Court repeated this characterization of the 1910 Act just eight years later. *See William Cramp & Sons Ship & Engine Bldg. Co. v. Int'l Curtis Marine Turbine Co.*, 246 U.S. 28, 41, 38 S.Ct. 271, 62 L.Ed. 560 (1918) (citing *Schillinger* and explaining that the 1910 Act "was intended alone to provide for the discrepancy resulting from the right in one case to sue on the implied contract and the nonexistence of a right to sue" for infringement). In *Crozier* and *Cramp*, the Supreme Court therefore acknowledged Congressional recognition that the Court of Claims lacked Tucker Act jurisdiction over infringement under a takings theory. The legislative history of the 1910 Act confirms that the statute augmented the Court of Claims' Tucker Act jurisdiction by providing jurisdiction over the tort of patent infringement. *See* H.R.Rep. No. 61-1288 at 3 (1910).

The Court of Federal Claims reasoned that because *Crozier* discussed the 1910 Act in terms of eminent domain, the Supreme Court must have reconsidered its analysis in *Schillinger*. This reasoning is misplaced. It is true that *Crozier*, and several cases applying the 1910 Act (in its original form and as amended and recodified at § 1498), analyze the statute in terms of takings and protecting property rights. Under this case law, patent infringement by the government is analogized to "taking" a "compulsory license." The view is consistent with the text of the 1910 Act, which provided for reasonable compensation for patent infringement, 36 ***1352** Stat. 851, and with the legislative history, which provided that the purpose of the bill was "to enlarge the jurisdiction of the Court of Claims so that said court may entertain suits against the United States for the infringement or unauthorized use of a patented invention, in certain cases, and award reasonable compensation to the owner of the patent." H.R.Rep. No. 61-1288, at 1 (1910).

But when interpreting the Constitution "[i]t is emphatically the province and duty of the judicial department to say what the law is." *Marbury v. Madison,* 1 Cranch 137, 5 U.S. 137, 177, 2 L.Ed. 60 (1803). That Congress may adopt a limited waiver of sovereign immunity and confer rights on patentees for money damages against the government, whatever the rationale, cannot disturb the Supreme Court's analysis of the Fifth Amendment in *Schillinger.* Neither the wording nor rationale of the 1910 Act, nor the Supreme Court's discussion of it in *Crozier,* affects the rule in *Schillinger.* Of course, the 1910 Act was not even before the *Crozier* court, as the action was filed three years before the Act was enacted. Even the plain language of the 1910 Act-entitled "An Act To Provide Additional Protection For Owners of Patents of the United States"-belies the trial court's analysis here, as it legislates against the background of the *Schillinger* legal framework.

In sum, the trial court's conclusion that *Crozier* "effectively overruled *Schillinger sub silentio* " has no merit. The trial court's remaining conjectures on takings jurisprudence do not require consideration. We simply note that to reach its conclusion the Court of Federal Claims had to read an entire statute, § 1498, out of existence-a result that betrays the error in the trial court's analysis. As the Supreme Court has clearly recognized when considering Fifth Amendment taking allegations, "property interests ... are not created by the Constitution. Rather, they are created and their dimensions are defined by existing rules or understandings that stem from an independent source such as state law." *Ruckelshaus v. Monsanto Co.,* 467 U.S. 986, 1001, 104 S.Ct. 2862, 81 L.Ed.2d 815 (1984) (citations omitted).[3] Here, the patent rights are a

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[3] In *Ruckelshaus v. Monsanto Co.,* 467 U.S. 986, 1003-04, 104 S.Ct. 2862, 81 L.Ed.2d 815 (1984), the Court concluded that government interference with interests "cognizable as trade-secret property right[s]" could constitute a taking depending on the circumstances. But *Monsanto* did not overrule *Schillinger,* and we must follow *Schillinger* until it is overruled

creature of federal law. In response to *Schillinger,* Congress provided a specific sovereign immunity waiver for a patentee to recover for infringement by the government. Had Congress intended to clarify the dimensions of the patent rights as property interests under the Fifth Amendment, there would have been no need for the new and limited sovereign immunity waiver. The manner in which Congress responded to *Schillinger* is significant. "The life of the law has not been logic; it has been experience." [4] Neither the Court of Federal Claims nor this court can ignore the path of the patent law as it has evolved under § 1498.

The dissent argues that we are wrong to conclude that *Schillinger* remains good ***1353** law. Both inverse condemnation claims and regulatory takings claims, it asserts, are currently viewed as claims founded upon the Fifth Amendment of the Constitution for purposes of the Tucker Act, and these claims are not barred for having arisen in tort. If, as the dissent argues is suggested by *Crozier,* a patent is a type of property that comes within the ambit of Fifth Amendment Takings Clause protection, why should we not likewise permit claims for patent infringement to arise under the Tucker Act?

The answer is simple. Unlike regulatory takings and the inverse condemnation of real property, the "taking" of a license to use a patent creates a cause of action under § 1498. The dissent fails to appreciate that this destroys whatever force its argument by analogy may otherwise have had. Indeed, if we were to interpret § 1491 as the dissent would have us, it would render superfluous § 1498-the remedy that Congress fashioned specifically to compensate patentees for

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by the Supreme Court, whether or not *Schillinger* is viewed as inconsistent with *Monsanto. See Indep. Ink, Inc. v. Ill. Tool Works, Inc.,* 396 F.3d 1342, 1351 (Fed.Cir.2005), *cert. granted,* --- U.S. ----, 125 S.Ct 2937, 162 L.Ed.2d 865 (2005).

[4] Oliver W. Holmes, *The Common Law* 5 (M. Howe ed.1963) (1881).

the use of their patents by the federal government. Moreover, even if we shared the dissent's belief that the Supreme Court would overrule *Schillinger,* we are nevertheless bound by its holding. It is not our place to overrule *sub silentio* the Supreme Court. *See Rodriguez de Quijas v. Shearson/American Express, Inc.,* 490 U.S. 477, 484, 109 S.Ct. 1917, 104 L.Ed.2d 526 (1989) ("If a precedent of this Court has direct application in a case, yet appears to rest on reasons rejected in some other line of decisions, the Court of Appeals should follow the case which directly controls, leaving to this Court the prerogative of overruling its own decisions."). In sum, the trial court erred in finding that Zoltek could allege patent infringement as a Fifth Amendment taking under the Tucker Act, and we reverse.

IV.

For the reasons set forth herein, we affirm the trial court's conclusion that the infringement allegations at bar are precluded by § 1498(a). We reverse the trial court's ruling that Zoltek can allege patent infringement as a Fifth Amendment taking under the Tucker Act. We remand for further proceedings consistent with this opinion.

AFFIRMED IN PART, REVERSED IN PART, and REMANDED.

Each side will bear its own costs.

GAJARSA, Circuit Judge, concurring.

I agree that we are bound by our panel decision in *NTP, Inc. v. Research in Motion, Ltd.,* in which we held that "direct infringement under section 271(a) is a necessary predicate for government liability under section 1498." 418 F.3d 1282, 1316 (Fed.Cir.2005) (citing *Motorola, Inc. v. United States,* 729 F.2d 765, 768 n. 3 (Fed.Cir.1984)). However, the *NTP* proposition is, in my view, the result of an unchecked propagation of error in our case law, and its viability may eventu-

ally be challenged. Consequently, I write separately to emphasize that our decision today does not depend for its validity on *NTP*, as it is also supported by an independent line of reasoning.

I.

Before discussing this additional basis for today's decision, I shall briefly address the ignoble history of the *NTP* proposition. An examination of the case law reveals that the proposition has its roots in *Decca v. United States*, in which we held that the United States could be liable under ***1354** 28 U.S.C. § 1498 only for direct infringement and not for indirect infringement:

> Section 1498 expressly waives the Government's sovereign immunity only with respect to governmental direct infringement of a patent. Nowhere in the section is active inducement of infringement or contributory infringement mentioned, either directly or by cross-reference to 35 U.S.C. § § 271(b) and (c). A waiver of sovereign immunity must be strictly construed. Stated differently, the Government is not to be regarded as having waived its sovereign immunity by implication.

225 Ct.Cl. 326, 340, 640 F.2d 1156 (Ct.Cl.1980). Thus, after *Decca*, a patentee who sought to establish a § 1498(a) claim had to prove "direct" infringement by the United States. I have no problem with this formulation of the rule, as it was the product of the *Decca* court's thoughtful analysis.

It is important to note, however, the relationship between the phrases "direct infringement," as used in *Decca, id.*, and the phrase "direct infringement under § 271(a)" as used in *NTP*, 418 F.3d at 1316. That relationship is one of set to subset: infringement under 35 U.S.C. § 271(a) is a specific kind of "direct infringement." Thus, while "direct infringement" is one of the requirements of an action against a private party under § 271(a), it is not the only requirement, with

§ 271(a) also requiring, *inter alia,* that the infringing activity occur "within the United States."

Decca, of course, did not require that a § 1498(a) plaintiff satisfy all of the requirements of § 271(a). Indeed, *Decca* did not even mention § 271(a). Instead, it required only that the accused use constitute a direct, rather than an indirect, infringement. *NTP,* in contrast, states as a blanket proposition that all of the requirements of 35 U.S.C. § 271(a) must be satisfied in order to prove a 28 U.S.C. § 1498 claim against the government. *See NTP,* 418 F.3d at 1316.

How did such a sweeping generalization evolve from *Decca?* The answer, unfortunately, is that its evolution owes to this court's imprecise recharacterization of the *Decca* holding in our decision in *Motorola. See* 729 F.2d 765, 768 n. 3. In *Motorola,* this court cited *Decca* at the end of a footnote as one of a number of cases supporting the very general proposition that the patent statutes are often inapplicable to actions arising under section 1498. *Id.* It stated that "the Government can only be sued for any direct infringement of a patent (35 U.S.C. § 271(a)), and not for inducing infringement by another (section 271(b)) or for contributory infringement (section 271(c))." *Id.* (emphasis added) (citing *Decca,* 640 F.2d at 1167).

By equating the specific statutory provision "35 U.S.C. § 271(a)" with the more general concept of "direct infringement," the *Motorola* court carelessly extended the *Decca* holding, thus laying the groundwork for the *NTP* proposition. There is distinct irony in the *Motorola* court's being responsible for the creation of an inadvertent link between 35 U.S.C. § 271(a) and 28 U.S.C. § 1498(a), given that the entire point of the *Motorola* footnote was to support the proposition that it is erroneous to simply assume the existence of relationships between these two statutory sections. *See id.* at 768 (explaining that "[a]lthough a section 1498 action may be similar to a

Title 35 action, it is nonetheless only parallel and not identical").

Although in *Motorola* the relationship between sections 271(a) and 1498(a) constituted*1355 mere dicta, in *NTP* the relationship, as slightly recast, became the binding precedent of this court. In my view, such a sweeping rule of binding precedent ought not to be created by mere inadvertence. In turn, the resolution of the important issue before this court today-the scope of the government's waiver of sovereign immunity as embodied in § 1498-ought not to be based solely on the basis of *NTP*.

In his concurring opinion, Judge Dyk attempts to find support for the *NTP* proposition. Citing certain legislative materials which state that the sole purpose of enacting § 1498(a) was to create jurisdiction (rather than additional liability), he argues that § 1498(a), even when viewed *apart from* 1498(c), cannot result in "the government's liability [being] broader than that of private parties." *Id.* In other words, according to his concurrence the limits of government liability under § 1498(a) are circumscribed by the hypothetical liability of a private actor under § 271(a), and we can entirely ignore § 1498(c) in the analysis.

His reliance on legislative history is misplaced, however, given that the plain language of the text demands a contrary and unambiguous interpretation. As is explained below, the plain language of the statute reveals that 28 U.S.C. § 1498 is *not* a mere waiver of sovereign immunity with respect to the *previously-existing remedy,* which was provided by 35 U.S.C. § 281 for transgressions denominated by § 271 as "infringing" the exclusionary rights granted by § 154(a).

There can be little doubt that § 1498 is more than a mere waiver of sovereign immunity. The plain language of the statute speaks of the provision of a "remedy," and the fourth paragraph of subsection (a) indicates that "remedy" means "right of action." *See id.* ("[This section shall not convey a

right of action on any patentee ... with respect to any invention discovered ... while in the employment ... of the United States ...."]) (emphasis added). Section 1498 is by no means a mere jurisdictional statute, and to the extent that materials in the legislative history may appear to suggest otherwise, they serve principally to illustrate why courts should often view legislative history with skepticism and rely on it only when the statute itself is ambiguous. If the *NTP* proposition can be sustained, it cannot be sustained on this ground.

Granted, in creating a new remedy, § 1498(a) inherently creates new rights. However, there is nothing about the text of § 1498(a) that either suggests or requires the existence of any substantive or conceptual link between these rights and remedies and those provided by the patent laws (pursuant to 35 U.S.C. § § 154(a) and 281, respectively). The independence of these two sets of rights and remedies results from § 1498(a) conditioning the availability of a remedy (and the inherent creation of a corresponding right) only on the "invention [being] described in and *covered by* a patent" (emphasis added) and the invention's being "used or manufactured by or for the United States without license of the owner thereof or lawful right ...." (emphasis added). The "coverage" provided by a patent is, of course, defined by the scope of its claims. *See, e.g., Johnson & Johnston Assocs. v. R.E. Serv. Co.*, 285 F.3d 1046, 1052 (Fed.Cir.2002) (expounding on the "fundamental principle that claims define the scope of patent protection"); *see also SRI Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed.Cir.1985) ("It is the *claims* that measure the invention." (citing ***1356** *Aro Mfg. Co., Inc. v. Convertible Top Replacement Co., Inc.*, 365 U.S. 336, 339, 81 S.Ct. 599, 5 L.Ed.2d 592 (1961))). Accordingly, a § 1498 right and remedy exist whenever an accused embodiment, used or manufactured by or for the government, falls within the *scope* of the patent claims as properly construed.[1] The

[1] In a § 1498 case, determining the scope of the claims proceeds via the same two-step analysis that occurs in a § 271(a) action, namely claim

"coverage" inquiry is independent of the nature and identity of the Title 35 rights that might have been available against a private infringer under the same circumstances.

Indeed, prior to the passage of § 1498(c), the remedy created by § 1498(a) was broader than that available against private parties in some instances. Again, the plain text of subsection (a) makes this clear. Whereas § 271(a) contains a territoriality restriction, § 1498(a) contains *none*. Indeed, if § 1498(a) had not created a cause of action against the government that was broader, with respect to overseas infringement, than that available against a private infringer, then it is difficult to understand the purpose of § 1498(c)-a subsection specifically barring § 1498 claims that "aris[e] in a foreign country."

In summary, patentees have the following rights and remedies: (1) a 35 U.S.C. § 281/271 remedy (for which neither 28 U.S.C. § 1498(a) nor any other statute provides a waiver of sovereign immunity) for transgression of rights granted by 35 U.S.C. § 154, and (2) a 28 U.S.C. § 1498 remedy (assertable against the federal government) for transgressions of an inherently-defined right to be compensated for government manufacture or use of inventions covered by patents. Because § 1498(a) created new and independent rights and remedies, rather than merely waiving sovereign immunity with respect to an old remedy (i.e. § 281), one cannot argue that § 1498(a) *a priori* requires § 271(a) as an *underlying* and predicate cause of action.

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construction, followed by a determination of whether the claims-as construed-read on the accused device. *See Lemelson v. United States*, 752 F.2d 1538, 1548 (Fed.Cir.1985) ("Although this court has noted that a section 1498 action and a title 35 action are only parallel and not identical, the principles of claim construction and reading claims on accused devices and methods are the same for either type of action.") (citations omitted). Of course, the *rights* triggered when embodiments fall within the claims may differ under § 1498 and § 271.

In fact, not even *NTP* posited a relationship specifically between § 271(a) and § 1498, *subsection (a)*. Rather the articulated relationship-the so-called "NTP proposition"-is between § 271(a) and § 1498 *as a whole*. *See NTP*, 418 F.3d at 1316 (holding that "direct infringement under section 271(a) is a necessary predicate for government liability under section 1498"). Not even *NTP* requires us to ignore the importance of § 1498, subsection (c), as Judge Dyk urges us to do in his concurrence.

I should explain that the *per curiam* opinion-which I join-does indeed state that the government's "liability does not exist pursuant to § 1498(*a*)" and that "1498(*a*) bars Zoltek's claims." (emphasis added). However, this usage simply reflects the fact that subsection (a) creates the cause of action. Consequently, liability-if not precluded by subsection (c)-must arise pursuant to subsection (a). The court's opinion today in no way endorses the view that subsection (c) is irrelevant, although we clearly do acknowledge the precedential effect of the *NTP* proposition, as articulated by the *NTP* court.

***1357** Judge Dyk's concurrence advances a second argument in support of the *NTP* proposition, namely that § 1498(a) was intended to be the "exact equivalent" of § 271(a), citing for support *Richmond Screw Anchor Co. v. United States*, 275 U.S. 331, 343, 48 S.Ct. 194, 72 L.Ed. 303 (1927). A careful reading of that case reveals, however, that the Court made no such pronouncement. *Richmond Screw* was a case about the assignability of patent claims. The backdrop was Rev. Stat. § 3477, which forbade *inter alia* the assignment of patent infringement claims against the United States that had not been reduced to judgment. Thus, under § 1498(a), as it existed prior to amendment in 1918, when a government *contractor* infringed a patent, the patent owner had both an assignable right of action against the contractor under § 271(a) and a claim against the government pursuant

to § 1498(a), with the latter being non-assignable pursuant to Rev. Stat. § 3477.

The 1918 amendments to § 1498 eliminated the remedy against the contractor pursuant to § 271(a), confining the patentee to a suit against the government for his entire compensation. *See* Pub.L. No. 65-182, 40 Stat. 704, 705 (1918). The salient question was what would become of *assigned* claims against the contractor. Did Rev. Stat. § 3477, which barred the assignment of claims against the United States, prevent the assignee of a § 271(a) claim against a government *contractor* from pursuing a 1498(a) claim against the government pursuant to the 1918 Amendment? Troubled by the possibility of the 1918 Act effecting an uncompensated taking under the Fifth Amendment, the Court held that § 3477 did not apply "to the assignment of a claim against the United States which is created by the Act of 1918 in so far as the Act deprives the owner of the patent of a remedy against the infringing private contractor for infringements thereof and makes the Government indemnitor for its ... infringements." *Richmond Screw,* 275 U.S. at 346, 48 S.Ct. 194.

Contrary to Judge Dyk's reading, the Court did not assert a blanket proposition that § 1498(a) must be viewed as being coextensive in all respects with § 271(a). It is true that the Court said, as quoted in his concurrence, that "[w]e must presume that Congress in the passage of the Act of 1918 intended to secure to the owner of the patent the *exact equivalent* of *what it was taking away* from him." (emphasis added). The concurring opinion appears to assume-incorrectly-that "what it is taking away" refers to § 271(a) as a whole, leading Judge Dyk to conclude that the Act of 1918 (constituting § 1498, as amended) is "the exact equivalent" of § 271(a). However, the Court tells us what it was referring to by the words "what it was taking away," and it was not referring to § 271(a) rights globally. Rather, it was referring-narrowly-to the assignability of rights pursuant to § 271(a). The next

two sentences of the quoted passage, which the concurrence omits, make this point clear.

> We must presume that Congress in the passage of the Act of 1918 intended to secure to the owner of the patent the exact equivalent of what it was taking away from him. *It was taking away his assignable claims* against the contractor for the latter's infringement of his patent. The *assignability of such claims* was an important element in their value and a matter to be taken into account in providing for their just equivalent.

Id. at 345, 48 S.Ct. 194 (emphasis added). In its careful-and restrictive-analysis the Supreme Court actually declined the ***1358** opportunity to articulate a broad, sweeping relation between § 271(a) and § 1498.

The *NTP* court should not have articulated such a relationship, especially not through reliance on logically flawed dicta, and I can see neither the need nor the clear basis for us-at least in this case-to attempt to support through logic, *post hoc,* what the *NTP* court has wrought through folly. Perhaps the *NTP* proposition will in the future gain recognition as a useful expedient against the backdrop of a more thoroughly interpreted § 1498. For now, however, I view the proposition as being no more than an inadvertent leap of faith from the specific to the general. Accordingly, while I join the court's opinion-recognizing that *NTP* binds us-my confidence that we are reaching the just and logical outcome stems not from it, but from the following analysis.

II.

I believe that this case poses two substantial questions of statutory interpretation. First, when is a patented method "used" under § 1498(a)? Second, does an infringement action "arise[ ] in a foreign country" under § 1498(c) if some steps of a claimed method are practiced abroad?

I conclude that a party "uses" a method claim within §1498(a) only when it practices every step of the claimed method. Furthermore, an action for an infringing use of a patented method "arises in a foreign country" under § 1498(c) whenever any claimed step is practiced abroad. I would therefore have affirmed the trial court's conclusion that § 1498 bars Zoltek's claims, even if we were not compelled to recognize *NTP* as precedent.

Section 1498 provides, in relevant part:

> Whenever an invention described in and covered by a patent of the United States *is used ... by or for the United States* without license of the owner thereof or lawful right to use or manufacture the same, the owner's remedy shall be by action against the United States in the United States Court of Federal Claims for the recovery of his reasonable and entire compensation for such use and manufacture.... For the purposes of this section, *the use* ... of an invention described in and covered by a patent of the United States *by a contractor, a subcontractor, or any person, firm, or corporation for the Government and with the authorization or consent of the Government, shall be construed as use ... for the United States.*

28 U.S.C. § 1498(a) (2000) (emphases added). At § 1498(c), Congress further limited the scope of claims under § 1498(a) with a foreign country exception. That limitation provides:

> The provisions of this section shall not apply to any claim arising in a foreign country.

28 U.S.C. § 1498(c) (2000).

Both sections require interpretation. First, the court must determine the meaning of a "use," as applied to a method claim, in § 1498(a). Second, the court must determine when

a claim "arises" in a foreign country under § 1498(c). The trial court complicated this analysis by collapsing the two steps together.[2] Although the two sections must be construed in harmony to preserve the integrity of the statutory scheme, in the first instance the questions of "use" and "arising" are separable. I address each issue in turn.

***1359** A.

The court's statutory analysis must give effect to Congress's intent when enacting the statute. *See Nat'l Labor Relations Bd. v. Lion Oil Co.*, 352 U.S. 282, 297, 77 S.Ct. 330, 1 L.Ed.2d 331 (1957) (observing that the court bears "a judicial responsibility to find that interpretation which can most fairly be said to be embedded in the statute, in the sense of being most harmonious with its scheme and with the general purposes that Congress manifested"); *Doyon, Ltd. v. United States*, 214 F.3d 1309, 1314 (Fed.Cir.2000). The analysis begins with the text of the statute. *Robinson v. Shell Oil Co.*, 519 U.S. 337, 340, 117 S.Ct. 843, 136 L.Ed.2d 808 (1997); *White v. Dep't of Justice*, 328 F.3d 1361, 1374 (Fed.Cir.2003). To fully understand the meaning of a statute, however, the court looks "not only to the particular statutory language, but to the design of the statute as a whole and to its object and policy." *Crandon v. United States*, 494 U.S. 152, 158, 110 S.Ct. 997, 108 L.Ed.2d 132 (1990); *accord Dunn v. Commodity Futures Trading Comm'n*, 519 U.S. 465, 478, 117 S.Ct. 913, 137 L.Ed.2d 93 (1997).

In this case the text of § 1498(a) is silent on the test for "use" of a patented method. The specific problem is a question of degree. In particular, one must decide whether "use" means practicing some steps of a claimed method, or instead requires practicing every claimed step.

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[2] The Court of Federal Claims ultimately concluded that § 1498(c) precluded any claim for a "use" of a patented process unless every step of the claimed process took place "within the United States." *Zoltek*, 51 Fed.Cl. at 836.

At the outset I note that it is well-settled, as a matter of patent law, that an infringing use of a patented method requires practicing every step claimed in the method.[3] *See Smith & Nephew, Inc. v. Ethicon, Inc.*, 276 F.3d 1304, 1311 (Fed.Cir.2001) ("Infringement arises when all of the steps of a claimed method are performed[.]"); *see also NTP*, 418 F.3d at 1318 ("[A] process cannot be used 'within' the United States as required by section 271(a) unless each of the steps is performed within this country."); [4] *accord Deepsouth Packing Co., Inc. v. Laitram Corp.*, 406 U.S. 518, 528, 92 S.Ct. 1700, 32 L.Ed.2d 273 (1972) ("[A] combination patent [asserted under § 271(a)] protects only against the operable assembly of the whole and not the manufacture of its parts."). The rule applies the long-settled principle, more commonly phrased in terms of products and the elements of device claims, that infringement requires practicing each and every limitation of the asserted patent claim. *See V-Formation, Inc. v. Benetton Group SpA*, 401 F.3d 1307, 1312 (Fed.Cir.2005) (recognizing the black-letter law that an accused product infringes a patent claim only if each and every limitation in the claim appears in the accused product); *Becton Dickinson & Co. v. C.R. Bard, Inc.*, 922 F.2d 792, 796 (Fed.Cir.1990) ("To establish infringement of a patent, every limitation set forth in a claim must be found in an accused product or process exactly or by a substantial equivalent."). "[A]ll [specified elements in a patent claim] must be regarded as material, leaving open only the question whether an omit-

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[3] *See* 35 U.S.C. § 271(a)(2000) ("Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent.").

[4] Although *NTP* merges the question of conduct (the use) and location (within the United States) in this explanation of § 271(a), the court plainly adopts the proposition that an infringing use requires practicing every step of a claimed method.

ted part is supplied by an equivalent ***1360** device or instrumentality." *Hubbell v. United States,* 179 U.S. 77, 82, 21 S.Ct. 24, 45 L.Ed. 95 (1900). Nothing in the text of § 1498 warrants a contrary interpretation of an infringing use here. Indeed, the result is consistent with the narrow reading that a court must assign § 1498.

Because § 1498(a) waives sovereign immunity for infringement actions against the government, a court must give the statute a strict construction. *See Lane v. Pena,* 518 U.S. 187, 192, 116 S.Ct. 2092, 135 L.Ed.2d 486 (1996); *United States v. Sherwood,* 312 U.S. 584, 590, 61 S.Ct. 767, 85 L.Ed. 1058 (1941) (citing *Schillinger v. United States,* 155 U.S. 163, 30 Ct.Cl. 480, 15 S.Ct. 85, 39 L.Ed. 108 (1894)); *Shoshone Indian Tribe v. United States,* 364 F.3d 1339, 1346 (Fed.Cir.2004); *RHI Holdings, Inc. v. United States,* 142 F.3d 1459, 1461 (Fed.Cir.1998). The waiver "must be unequivocally expressed in statutory text" and the courts will not imply exceptions. *Lane,* 518 U.S. at 192, 116 S.Ct. 2092 (citing *United States v. Nordic Village, Inc.,* 503 U.S. 30, 33-34, 37, 112 S.Ct. 1011, 117 L.Ed.2d 181 (1992) and *Irwin v. Dep't of Veterans Affairs,* 498 U.S. 89, 95, 111 S.Ct. 453, 112 L.Ed.2d 435 (1990)). Consistent with these principles a court must resolve any ambiguity in the statute "in favor of immunity." *See United States v. Williams,* 514 U.S. 527, 531, 115 S.Ct. 1611, 131 L.Ed.2d 608 (1995). Applying these principles to § 1498(a) makes the narrowest interpretation of an infringing "use" presumptively correct. Because I must narrowly construe the breadth of the statutory language, the sovereign immunity analysis confirms that the "use" of a claimed method under § 1498(a) requires practicing every step in the claim.

B.

Assuming Zoltek alleges an infringing use, the question becomes where the § 1498(a) claim arises. Under § 1498(c), Congress curtailed its sovereign immunity waiver to preclude § 1498(a) claims "arising in a foreign country." The question

here is the extent of this curtailment when the government practices a patented process having multiple steps.

In addressing this question, it is useful to imagine four factual scenarios. The first and easiest scenario is where all of the steps of the process were performed in this country-a situation in which there is no question that a claim, if any, must arise in the United States. The second scenario is where all of the steps were performed abroad, as is true in this case with the alleged infringement of the Nicalon fiber claims. (I address these claims in the next section.) Later in the opinion, I will address the meaning of 1498(c) in the context of the third and fourth scenarios, in which some, but not all steps were performed abroad; in the third scenario, the last step of the process is practiced abroad, and in the fourth scenario (as with the Tyranno fiber claims), the last step is practiced in the United States.

1.

I shall start with the Nicalon fiber claims, in which all of the infringing steps were performed abroad. Clearly the infringing activity is entirely outside the United States from a geographical perspective. Therefore, it does not occur "within" the United States as required by § 271(a), as the law has long recognized that patent infringement claims arise where the infringing activity is consummated. *See, e.g., Deepsouth,* 406 U.S. at 527, 92 S.Ct. 1700 (holding that final assembly abroad of a patented device cannot be an infringing manufacture within the meaning of § 271(a)). But this is not a ***1361** § 271(a) action, and there is therefore no *a priori* reason why this court must interpret the "arising in a foreign country" language of § 1498(c) as being antonymous with the phrase "within the United States," as used in § 271(a). However, based on a review of the legislative history and a broad construction of § 1498(c)-a construction necessary to limit the scope of Congress' waiver of sovereign immunity under § 1498(a)-I would hold that § 1498(c) precludes at a

minimum those actions premised on infringing activity in which all steps of the infringing process are performed abroad.

Congress enacted § 1498(c) in 1960 as part of its amendments providing an action against the government for copyright infringement. *See* Pub.L. No. 86-726, 74 Stat. 855 (1960). While Congress considered various drafts, the State Department suggested the language eventually codified at § 1498(c).[5] The discussion accompanying the suggestion indicates that the Department specifically intended the language of subsection (c) to remedy concerns that the proposed bill would allow suit for actions abroad, by the United States, which infringed copyrights. *See* H. Rep. No. 86-624, at 6-7 (1959) (reprinting June 5, 1958 letter from William B. Macomber, Jr., Assistant Secretary of State, to James O. Eastland, Chairman of the Senate Judiciary Committee). Recognizing that the patent provisions of § 1498(a) had the same ambiguity "with respect to infringements occurring abroad," the State Department suggested making the foreign country exception applicable to both patent and copyright infringement. *Id.* at 7. The Commerce Department agreed that there was ambiguity concerning "an act of infringement in a foreign country," and endorsed the State Department suggestion. *See id.* at 5-6 (reprinting Feb. 27, 1959 letter from Frederick H. Mueller, Under Secretary of Commerce, to Emanuel Celler, Chairman of the House Judiciary Committee). The foreign country exception at § 1498(c) adopts the State Department suggestion without change. *See* Pub.L. No. 86-726, 74 Stat. 855 (1960) (codified in relevant part at § 1498(c)). In short, the legislative history confirms that Congress intended § 1498(c) to foreclose actions on § 1498(a) violations taking place in, or arising in, a foreign country.

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[5] The State Department comments were directed to H.R. 8419, a predecessor bill to H.R. 4059. H.R. 4059 was enacted on September 8, 1960. *See* Pub.L. No. 86-726, 74 Stat. 855 (1960) (codified at 28 U.S.C. § 1498).

In construing statutory language, it is prudent to be cognizant of constructions that courts have accorded to identical language, where it occurs in other statutes. Here I recognize that Congress took the language of § 1498(c) from identical language found at 28 U.S.C. § 2680(k), adopted twelve years earlier.[6] Normally, where Congress borrows language from one statute in enacting another, the meaning accorded terms in the source statute can be taken as probative of the meaning in the borrowing statute. *See Lorillard v. Pons,* 434 U.S. 575, 580-81, 98 S.Ct. 866, 55 L.Ed.2d 40 (1978); ***1362** *id.* at 581, 98 S.Ct. 866 ("[W]here ... Congress adopts a new law incorporating sections of a prior law, Congress normally can be presumed to have had knowledge of the interpretation given to the incorporated law, at least insofar as it affects the new statute[.]").

Plainly, many determinants of the borrowed statute canon are satisfied here. The statutes serve similar purposes. Both provisions limit the potential government liability occurring abroad by curtailing Congress's sovereign immunity waiver for tort liability. Moreover, during Senate sub-committee hearings, the testimony made clear that § 1498(c) was intended to provide an exclusion analogous to § 2680(k).[7] In

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[6] The Federal Tort Claims Act ("FTCA") waives sovereign immunity for certain tort claims against the United States. *See* 28 U.S.C. § 1346(b). The statute contains a foreign country exception that precludes § 1346(b) liability for "[a]ny claim arising in a foreign country." 28 U.S.C. § 2680(k). Congress enacted this provision in 1948. *See* 62 Stat. 984, 985 (1948). Twelve years later, Congress used the same language when enacting § 1498(c). *See* Pub.L. No. 86-726, 74 Stat. 855 (1960) (codified at § 1498(c)).

[7] *See* Infringement of Copyrights: Hearings on H.R. 4059 Before the Senate Subcommittee On Patents, Trademarks, and Copyrights of the Senate Committee on the Judiciary, 86th Cong. 12-13 (1960) (statement of Arthur Fisher, U.S. Registrant of Copyrights) ("[I]t was originally felt that [§ 1498(c)] was unnecessary, that a tort committed abroad would not be subject to suit under the act.... [I]t is quite clear that whatever is the situation with respect to infringements committed abroad, this act leaves the

this case, however, the meaning of § 2680(k) has limited value for interpreting § 1498(c). This is true because the borrowed statute canon is not absolute, and it does not justify results either inconsistent with the statutory scheme at bar, or leading to functional absurdity in application. Consequently, for the reasons given below, I conclude that the borrowed statute canon does not compel us to interpret § 1498(c) in light of § 2680(k).

In *Sosa v. Alvarez-Machain,* 542 U.S. 692, 124 S.Ct. 2739, 159 L.Ed.2d 718 (2004), the Supreme Court held that a "claim arising in a foreign country," under § 2680(k), referred to where tortious injury is suffered. "[T]he FTCA's foreign country exception bars all claims based on any injury suffered in a foreign country, regardless of where the tortious act or omission occurred." *Id.* at 2754. A patent infringement claim, however, is different in kind from the tortious injuries contemplated by § 2680(k).

Though patent infringement claims may be viewed as species of tort claims, they are subject to a territoriality restriction unknown in general tort law. Determining the liabilities of the United States for patent infringement under 28 U.S.C. § 1498(a) requires the application of only United States law, because section 1498 conditions the government's liability on the existence of patent rights granted by the United States. In contrast, the FTCA requires application of local law to determine the liability of the United States, and under governing choice of law principles, the local law to be applied is typically the law of the place where the injury occurred. 28 U.S.C. § 1346(b)(1) (2000).

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situation in status quo; it does not affect it. [§ 1498(c)] simply says that this [section] shall not apply to torts committed abroad [.] ... [O]ther agencies have not felt safe in operating under the Government Tort Claims Act, and ... we should simply follow along with a substantially parallel position to the patent law.").

Allowing recovery for foreign injury where the causative acts occurred in the United States thus raised the specter that the liability of the United States would be governed by foreign law. No similar problem exists under the patent laws because United States law will apply to the infringing acts occurring in the United States. Under these circumstances, construing the "arising in" language of section 1498(c) to look to the place of the infringing act rather than the place of the injury is perfectly*1363 consistent with the Congressional objectives.[8]

Although Zoltek urges the court to read § 1498(c) as limited to claims arising under foreign patent laws, neither Zoltek's suggestion nor the Supreme Court's rationale in *Sosa* sensibly applies here. First, § 1498(a) plainly provides for actions concerning "invention[s] described in and covered by a patent of the United States[.]" 28 U.S.C. § 1498(a). Zoltek's analysis would read this provision, in view of § 1498(c), as waiving sovereign immunity to allow infringement actions under a foreign patent if the asserted claim coincided with protections under an issued U.S. patent. I find that reading stylized and unpersuasive. If Congress intended to allow suit against the government for infringing a foreign patent, it would have so stated, and not limited the possible actions by reference to parallel U.S. patents. Moreover, Zoltek's suggestion is inconsistent with the plain language of § 1498(c) and the structure of § 1498. It would make little

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[8] Our cases concerning personal jurisdiction in patent cases, which look to "the location ... at which the infringing activity directly impacts on the interests of the patentee," *Beverly Hills Fan Co. v. Sovereign Corp.*, 21 F.3d 1558, 1571 (Fed.Cir.1994), address where suit may be brought to enforce an existing substantive claim, but those cases do not define the substantive claim itself. The question of whether a patent infringement claim can be maintained at all (controlled by sections 1498(a) and 1498(c) where the alleged infringer is the government) is analytically distinct from the personal jurisdiction issue. Any uncertainty as to the scope of the patent law must be determined before addressing personal jurisdiction over the claim.

sense for Congress to curtail the sovereign immunity waiver at § 1498(c) if the underlying action in § 1498(a) allowed suit "under foreign law." In short, § 1498 is consistent with a provision to vindicate a U.S. patent right, not a foreign patent right. Second, for similar reasons, unlike § 2680(k), § 1498(a) does not require a choice of law analysis and the *Sosa* consideration of place of injury is simply inapplicable here. In sum, the § 1498(a) claim arises where the infringing activity is consummated.

This analysis precludes Zoltek's Nicalon fiber allegations. Where all the steps of a process patent are performed abroad, the claim "arises in a foreign country," and the action is barred by § 1498(c). The record evidences that the accused Nicalon fiber products were made entirely in Japan. Zoltek's contention that the government violated § 1498(a) when Lockheed's Japanese subcontractors "used" Zoltek's method claims to make the Nicalon products, therefore, fits squarely within our interpretation of § 1498(c). The same holds for the Tyranno fiber allegations, insofar as the fibers were made in Japan. The Court of Federal Claims correctly determined that it lacked jurisdiction to decide those allegations.

2.

The infringement allegations concerning the Tyranno fiber products, however, cannot be tethered to any single location. This presents the difficult question. Although the fibers were made overseas, the record shows that the final products were made in the United States. According to Zoltek's infringement allegations, some of the claimed method steps were practiced in Japan, and some in the United States. The allegedly infringing conduct, in short, was not confined within national boundaries.

Does such conduct "arise in a foreign country" within the meaning of § 1498(c)? As explained herein I conclude that it ***1364** does, with the effect of barring Zoltek's Tyranno fiber product allegations. Put differently, I read "claims arising

abroad" expansively, as capturing any claim that does not arise entirely through domestic infringing conduct. In doing so, I reject any contention that the analysis depends on where any individual step of the claimed method was practiced.

Two longstanding interpretative principles support the conclusion that the language at § 1498(c), limiting the sovereign immunity waiver at § 1498(a), includes within its proscription the conduct disputed in this action. First, the courts generally disfavor extraterritorial application of United States law. *See EEOC v. Arabian Am. Oil Co.*, 499 U.S. 244, 248, 111 S.Ct. 1227, 113 L.Ed.2d 274 (1991) ("It is a longstanding principle of American law that legislation of Congress, unless a contrary intent appears, is meant to apply only within the territorial jurisdiction of the United States."). The principle rests on sound policy, including a concern to avoid conflict with other national laws, regard for international comity, choice of law analysis, and separation of powers. Thus, in *Deepsouth,* the Supreme Court expressly refused to extend the scope of § 271(a) to capture an extra-territorial manufacture of an infringing device absent express guidance from Congress. "Our patent system makes no claim to extra-territorial effect ... and we correspondingly reject the claims of others to such control over our markets." 406 U.S. at 531, 92 S.Ct. 1700 (citing *Brown v. Duchesne,* 60 U.S. (19 How.) 183, 195, 15 L.Ed. 595 (1856) and *Boesch v. Graff,* 133 U.S. 697, 703, 10 S.Ct. 378, 33 L.Ed. 787 (1890)). In narrowing the reach of actions under § 1498(a), § 1498(c) manifests a Congressional intent to limit infringement actions where conduct by or for the government sounded abroad. Reading § 1498(c) to foreclose the action at bar is consistent with a strict view of the extra-territoriality principle.[9]

Second, this view comports with the narrow construction that a court must afford sovereign immunity waivers. A

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[9] The dissent suggests that we have ignored the Fifth Amendment in determining the proper jurisdictional scope provided by § 1498.

court must resolve textual ambiguity in a statutory waiver in favor of immunity. As noted above, the waiver must be clear, and ambiguities resolved in favor of immunity. Since the waiver must be construed narrowly, the § 1498(c) exclusion-serving to narrow the waiver at § 1498(a)-must be construed broadly. *Cf. Shoshone Indian,* 364 F.3d at 1346. Given an expansive reading, these principles indicate that a claim "arises in a foreign country" under § 1498(c) if, as with the Tyranno product allegations, some steps of a claimed method are practiced abroad.[10]

Although this court has never decided how § 1498(c) applies to transnational conduct in practicing a patented method, on one occasion our predecessor court was confronted with allegations of infringing use of a transnational *device.* In *Decca Ltd. v. United States,* 210 Ct.Cl. 546, 544 F.2d 1070 (1976), as in this case, the government argued that § 1498(c) was a dispositive bar to jurisdiction. The Court of ***1365** Claims, however, neither expressly interpreted nor applied the statute.[11] Instead, as explained below, it crafted a test for determining an effective "location" of the accused, internationally disposed, device. The *Decca* court then determined that if such a device could be said to be located "within the United States," the § 1498(a) claim for infringing use would arise where the device was "located." For several reasons I con-

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[10] While not a basis for my interpretation of § 1498, I note that any rule that allowed sovereign immunity, and liability, to turn on where a defendant practiced any given step of a claimed method would simply invite strategic manipulation and prove unworkable. Potential infringers would simply move their conduct offshore-if only for the last step of the process-in order to avoid the specter of § 1498(a) liability.

[11] Indeed, although the United States briefed the issue in conjunction with a motion to dismiss, the trial division of the Court of Claims specifically noted in its pretrial order that "[j]urisdiction is not disputed and is hereby determined to be present." *Decca,* No. 299-70, Pre-Trial Order ¶ 1 (Ct.Cl. Mar. 20, 1975).

clude that no comparable test should apply to the facts in this case.

To understand why, it bears reviewing the case in detail. *Decca* involved the Omega long range radio navigation system. Certain components of the system-broadcast stations-were located overseas. The plaintiff, Decca, owned U.S. Patent No. 2,844,816, which claimed radio navigation systems.[12] It alleged that the Omega system infringed certain device claims in the '816 patent and that the government violated § 1498(a) by using the Omega system. The government sought dismissal, arguing that because some broadcast towers were located in Norway and other overseas locations, the action arose in a foreign country and was barred by § 1498(c).

The court disagreed. The Court of Claims defined the "location" of the Omega system to be "in United States territory," *implicitly reasoning that* an infringing use "within the United States," *a fortiori,* does not give rise to an infringement claim "arising in a foreign country" under § 1498(c). In sum, *Decca* stands for the narrow, and collateral, proposition that under § 1498(a) the infringing use of a claimed device "arises" where an accused device is "located."

There are, however, no "use of device" claims at issue in this action, and *Decca* is therefore inapposite. In *Decca,* the elements of a patented device were assembled, one by one and in different countries, and the device was therefore made. Likewise, in this case, the steps of a patented process were practiced, one by one and in different countries, and the process was therefore performed. However, these cases are not analogous, because the concept of the "use" of a device is

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[12] The trial court found the government liable for an infringing use of claim 11, which claimed a hyperbolic radio navigation system. *See* '816 patent, col. 12, l. 63-col. 13, l. 34 (claim 11); *Decca,* 544 F.2d at 1083. With minor changes in the factual findings, the three judge panel adopted the trial court's analysis. *Decca,* 544 F.2d at 1072.

fundamentally different from the use of a process. Whereas utility can be extracted from a device only after it has been "made," utility is extracted from a process concurrent with its being "practiced." *See NTP*, 418 F.3d at 1318 ("Because a process is nothing more than the sequence of actions of which it is comprised, the use of a process necessarily involves doing or performing each of the steps recited. This is unlike use of a system as a whole, in which the components are used collectively, not individually."). As a consequence of this failure in the analogy, *Decca* is neither on point nor particularly instructive.

Consequently, I would decline any invitation to extend *Decca*'s rationale beyond its intended context of device claims to practicing the steps of a claimed method. In particular, the *Decca* rationale for characterizing the accused Omega radio navigation***1366** system as "located ... within the United States" threatens to swallow the § 1498(c) limitation if applied to the process claim at bar. *Decca*'s infringement analysis placed "particular emphasis on the ownership of the equipment by the United States, the control of the equipment from the United States and on the actual beneficial use of the system within the United States." 544 F.2d at 1083. Relying on these observations, both the trial court and the appellate panel concluded that the "location of the infringement is within United States territory." *Id.* at 1074. The panel relied, in particular, on the fact that the infringing broadcast equipment "is designed and built by the United States Government," and that the "location of the whole ... is where the 'master' station or stations are, which is in the United States of America, and where all the stations are monitored, presently in Washington, D.C." *Id.*

Were a court to extend *Decca*'s reasoning here, it could conclude that where the government, or a contractor acting at the government's direction, commissions or directs the conduct later accused of infringing a method patent, the resulting claim for infringing use under § 1498(a) "arises" within the

United States, and not abroad, under § 1498(c). Applying the *Decca* reasoning out of its intended context of device claims, however, would effectively read the plain language of § 1498(c) out of existence. The statute concerns allegations of infringement against the government, and it is difficult to imagine circumstances where such conduct would not be traceable back to the federal government, thus completely avoiding the narrowing effect of § 1498(c) on Congress's waiver of sovereign immunity. In short, if the accused conduct is always traceable to decision making in the United States, proximately causing otherwise "infringing" conduct abroad, then such claims will never be restricted by the prohibition at § 1498(c).

III.

In sum, the infringing use of a patented method under § 1498(a) consists of practicing all steps in the claimed method. Because the injury from infringement is intangible and not amenable to geographical reference, the cause of action cannot be said to arise where injury is suffered, and the § 2680(k) cases are of limited value in interpreting § 1498(c). I would thus look to where the infringing conduct occurred to ascertain where the claim arises. In the first analysis, no particular step has primacy. But since a court must give the sovereign immunity waiver at § 1498 narrow construction, I must view the exclusion at § 1498(c) broadly and resolve ambiguity in favor of immunity. For that reason, § 1498(c) precludes an action premised on infringing use of a method claim if some steps of the method are practiced abroad. Since Zoltek's Tyranno product claims falls within this construction, they are barred. Thus, the trial court properly concluded that it lacked jurisdiction over those infringement allegations.

The dissent argues that I must be careful to construe § 1498 in a manner that does not somehow run afoul of the Fifth Amendment. Its concern is fundamentally misguided, however, even if one assumes, for sake of argument, that a

patent is a type of property to which Fifth Amendment protections apply. Section 1498 is a waiver of sovereign immunity, the scope of which is completely within the discretion of *1367 Congress.[13] In fact, there is no Fifth Amendment requirement that § 1498 exist at all; it is the responsibility of Congress, and of Congress alone to decide whether, and to what extent, it will permit the courts to help it fulfill its Constitutional obligations under the Takings Clause.[14] A court

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[13] *See Lynch v. United States,* 292 U.S. 571, 582, 54 S.Ct. 840, 78 L.Ed. 1434 (1934) ("The sovereign's immunity from suit exists whatever the character of the proceeding or the source of the right sought to be enforced.... [including] those arising from some violation of rights conferred upon the citizen by the Constitution ...." (citing *Schillinger v. United States,* 155 U.S. at 166, 168, 15 S.Ct. 85, 39 L.Ed. 108 ("The United States cannot be sued in their courts without their consent, and in granting such consent Congress has an absolute discretion to specify the cases and contingencies in which the liability of the Government is submitted to the courts for judicial determination. Beyond the letter of such consent the courts may not go, no matter how beneficial they may deem, or in fact might be, their possession of a larger jurisdiction over the liabilities of the Government."))).

[14] Indeed, before the passage of the Tucker Act, ch. 359, § 1, 24 Stat. 505 (1887) (codified as amended at 28 U.S.C. § 1491), Congress had sole responsibility for paying takings claims. No judicial relief was available. *See, e.g., Langford v. United States,* 101 U.S. 341, 343, 25 L.Ed. 1010 (1879) (holding that notwithstanding the obligation of the United States to pay just compensation, there existed no remedy in the courts because "Congress has made no provision by any general law for ascertaining and paying this just compensation"). In *Lynch v. United States,* the Supreme Court reaffirmed the discretion of Congress to reserve to itself the payment of just compensation for Fifth Amendment takings. 292 U.S. 571, 54 S.Ct. 840, 78 L.Ed. 1434. In that case, the Court started by recognizing that "[r]ights against the United States arising out of a contract with it are protected by the Fifth Amendment." *Id.* at 579, 54 S.Ct. 840. It held, however, that Congress may elect to retain the sole power to remediate alleged "takings" of these contractual rights. *See id.* at 582, 54 S.Ct. 840 ("When the United States *creates rights in individuals against itself,* it is under no obligation to provide a remedy through the courts. It may limit the individual to administrative remedies. And withdrawal of all remedy, administrative as well as legal, would not necessarily imply repudiation. So long as the contractual obligation is recognized, *Congress may direct*

need not concern itself with whether § 1498, construed narrowly in recognition of Congress' sole power to waive sovereign immunity, provides a compensation scheme that is compliant with the requirements of the Takings Clause. It is not our place to interpret sovereign immunity waivers with an eye toward their Takings Clause sufficiency *vel non*, because the Constitution does not require Congress to create remedies *in the courts* at all. If Congress did not create a statutory scheme for compensation as provided under § 1498, it would follow that without such a provision, compensation would need to be obtained through legislative action.

IV.

For the aforegoing reasons, I believe that there exists an additional, and independent, basis for reaching the decision of the court today that § 1498(a) liability for the use of process claims requires all the steps to have been practiced in the United States. In my view, therefore, our decision today could have been reached without relying on *NTP*.

DYK, Circuit Judge, concurring.

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its fulfillment without the interposition of either a court or an administrative tribunal." (emphasis added) (citing *United States v. Babcock*, 250 U.S. 328, 331, 39 S.Ct. 464, 63 L.Ed. 1011 (1919) and *Tutun v. United States*, 270 U.S. 568, 576, 46 S.Ct. 425, 70 L.Ed. 738 (1926))).

I join the court's per curiam opinion but write separately to express my view that ***1368** the court correctly held in *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1316 (Fed.Cir.2005), that the government can only be liable for infringement under section 1498(a) if the same conduct would render a private party liable for infringement under section 271(a).[1]

I

Section 1498(a) provides, in pertinent part:

> Whenever an invention described in and covered by a patent of the United States is used or manufactured by or for the United States without license of the owner thereof or lawful right to use or manufacture the same, the owner's remedy shall be by action against the United States in the United States Court of Federal Claims for the recovery of his reasonable and entire compensation for such use and manufacture.

In my view, the purpose of section 1498(a) was to make the United States and its contractors liable for "use" of a patented invention that would in similar circumstances constitute direct infringement by a private party.

Patent rights are nothing more than the rights to exclude others. *See* 35 U.S.C. § 154(a) (2000) (defining the patent grant in terms of its exclusionary powers). In the case of private parties that right is cabined to infringement occurring within the United States. Congress could not have intended to confer broader rights against the United States than against private parties.

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[1] Under 28 U.S.C. § 1292(d)(2), "the nature and scope of our review are not limited to the certified question but [rather] we are free to consider all questions material to the trial court's order ...." *United States v. Connolly*, 716 F.2d 882, 885 (Fed.Cir.1983).

The omission of the "within the United States" language (appearing in section 271(a)) from section 1498(a) does not suggest that the government's liability for infringement is broader than that of private parties. Section 271(a) broadly defines the rights of patent holders against all persons who utilize the patented invention; the language of the section is broad enough to cover the United States. Section 271(a) does not, however, waive the government's sovereign immunity. That was the purpose of the original section 1498, which was designed to provide a remedy against the government for the infringement described in section 271(a). In other words, unlike section 271(a), section 1498(a) was not designed to define what constitutes infringement (terminology that does not appear in section 1498(a)). Rather, it was intended to define the "owner's remedy" against the United States, when the United States did not have a license or the "lawful right to use" the patented invention. The question whether the United States had a lawful right to use the invention turned on whether a private party would have had such a right, as the history of section 1498 confirms. The additional purpose of section 1498, as amended in 1918, was to substitute a remedy against the United States for a remedy against private parties working for the government.

Legislation in 1910 first conferred the right to sue the United States for infringement. Pub.L. No. 61-305, 36 Stat. 851 (1910). That legislation was simply designed to waive the sovereign immunity of the United States for preexisting causes of action conferred by the patent statute ***1369** (what is now section 271(a)).[2] As the House committee explained, "Our only purpose is to extend the jurisdiction of [the Court of Claims] so that it may entertain suits and award compensa-

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[2] The 1910 enactment provided: "That whenever an invention described in and covered by a patent of the United States shall hereafter be used by the United States without license of the owner thereof or lawful right to use the same, such owner may recover reasonable compensation for such use by suit in the Court of Claims." Pub.L. No. 61-305, 36 Stat. 851.

tion to the owners of patents in cases where the use of the invention by the United States is unauthorized and unlawful ...." H.R.Rep. No. 61-1288, at 3 (1910). In considering the 1910 legislation, Congressman Crumpacker stated that the bill "simply gives consent of the Government to these parties to sue in the Court of Claims for this class of liabilities that it would be liable to suit for if it were not for its sovereignty." Congressman Currier, who introduced the bill, agreed, explaining that the bill "does not create any liability; it simply gives a remedy upon an existing liability." 45 Cong. Rec. 8755, 8756 (1910).

The 1918 amendments, Pub.L. No. 65-182, 40 Stat. 704, 705 (1918), similarly confirm that the purpose of the statute was simply to obligate the United States to the same extent as private parties. Congress was concerned that when patented inventions were used or manufactured by others for the United States, suit was being brought against government employees or contractors individually. Thus in 1918, Congress changed the language of the 1910 statute to read:

> That whenever an invention described in and covered by a patent of the United States shall hereafter be used *or manufactured* by *or for* the United States without license of the owner thereof or lawful right to use *or manufacture* the same, *such owner's remedy shall be by suit against the United States in the Court of Claims for the recovery of his reasonable and entire compensation for such use and manufacture.*

Id. (emphasis added).

Congress intended the 1918 amendment "to relieve the contractor entirely from liability of every kind for the infringement of patents in manufacturing anything for the government, and to limit the owner of the patent ... to suit against the United States in the Court of Claims for the recovery of

his reasonable and entire compensation ...." [3] *Richmond Screw Anchor Co. v. United States,* 275 U.S. 331, 343, 48 S.Ct. 194, 72 L.Ed. 303 (1928). Congress in taking this action could hardly have intended that the substituted rights against the United States would be broader than the original rights against the employee or contractor. Indeed, in construing the 1910 legislation (as amended in 1918) to resolve the question whether infringement claims against the government were assignable, the Supreme Court expressly held that the statute

> is an attempt to take away from a private citizen his lawful claim for damage to his property by another private person which but for this act he would have against the private wrongdoer.... We must presume that Congress in the passage***1370** of the act of 1918 intended to secure to the owner of the patent the *exact equivalent* of what it was taking away from him.

Id. at 345, 48 S.Ct. 194 (emphasis added). *See also Coakwell v. United States,* 178 Ct.Cl. 654, 372 F.2d 508, 511 (1967) ("[Section 1498] was not intended to change the basic incidents to which liability would attach for the purposes of seeking comprehensive compensation for the unlicensed use of a patented invention.").

The "exact equivalent" of section 271(a) limits liability to infringement occurring "within the United States." [4] Accordingly, the government cannot be responsible for an infringing

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[3] What is now the second paragraph of section 1498(a), originally part of 35 U.S.C. § 94, was added in 1942 to further clarify that actions against United States employees or contractors were barred and replaced by an action against the United States. *See* Pub.L. No. 77-768, § 6, 56 Stat. 1013, 1014 (1942); S.Rep. No. 77-1640, at 5 (1942).

[4] There is no occasion here to determine whether claims for infringement liability under 271(f) and 271(g) may be brought in suits against the government.

"use" under section 1498(a) unless the act constitutes a directly infringing "use within the United States" under section 271(a), as *Research in Motion* correctly held. There is no need to decide the scope of section 1498(c) in this case.

II

Finally, I note that Judge Plager's interesting discourse on takings jurisprudence completely fails to explain how taking of a property right could possibly have occurred here. Patent rights are creatures of federal statute.[5] They do not exist in the abstract. If, as I urge, the patent holder's right to sue the government for infringement under 1498(a) is no broader than the rights of the patent holder against private parties under section 271(a), then there can be no taking resulting from the refusal to recognize a greater right against the government. And if, on the other hand, section 1498 is construed to give the patent holder greater rights against the government than against private parties, that right is necessarily defined by both sections 1498(a) and 1498(c) taken together. It makes no sense to say that section 1498(a) confers rights that are "taken" by section 1498(c). Under these circumstances there can be no taking by the government under any interpretation of section 1498, quite apart from the barrier posed by the Supreme Court's decision in *Schillinger v. United States*, 155 U.S. 163, 30 Ct.Cl. 480, 15 S.Ct. 85, 39 L.Ed. 108 (1894). There is thus no basis for a Fifth Amendment takings claim in this case even if *Schillinger* were overruled.

PLAGER, Senior Circuit Judge, dissenting.

There are two separate though related issues in this case, both matters of first impression. One is of major significance to our understanding of the constitutional obligations of the

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[5] Unlike the situation in *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 104 S.Ct. 2862, 81 L.Ed.2d 815 (1984), we deal here with a property right created by federal law.

United States ("United States" or "Government"); both relate as well to important rights of patent owners.[6] The first issue is, may an owner of a United States patent bring a cause of action under the Fifth Amendment to the Constitution [7] against the United States for a 'taking' as all other owners of property*1371 rights may; or is a patent right somehow less of a property interest, not worthy of such constitutional protection? Until this case, this issue has never been addressed directly by this or any other court.

The second issue, dealing with a cause of action for infringement of a United States patent, is raised in the context of a method or process patent claim involving multiple steps. When an owner of such a patent sues the United States for infringement under the provisions of 28 U.S.C. § 1498, the statute that authorizes such suits against the Government, does the fact that some or all of the steps are performed in a foreign country preclude recovery? If so, is this because of some inherent limitation in § 1498(a), or is it because of the express statutory exception in § 1498(c) for a claim "arising in a foreign country"? (The relevant statutory language is set out in the footnote below.[8]) This is not only a new question of statutory interpretation, but because of the way the Su-

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[6] The term "patent owner" as used throughout this opinion includes assignees of a patent.

[7] "[N]or shall private property be taken for public use, without just compensation." U.S. Const. amend. V.

[8] The relevant portion of 28 U.S.C. § 1498(a) reads:

Whenever an invention described in and covered by a patent of the United States is used or manufactured by or for the United States without license of the owner thereof or lawful right to use or manufacture the same, the owner's remedy shall be by action against the United States in the United States Court of Federal Claims for the recovery of his reasonable and entire compensation for such use and manufacture.

Section 1498(c) reads in its entirety: "The provisions of this section shall not apply to any claim arising in a foreign country."

preme Court and this court have understood § 1498, there are significant constitutional overtones as well.

I. Introduction

Plaintiff invented and patented a process for manufacturing a carbon fiber sheet product, a product that is used in making military aircraft with a low radar signature, the so-called 'stealth' aircraft. Defendant, the United States, so plaintiff alleges, caused the use of plaintiff's patented invention in the course of having a new fighter plane, the F22, built, and, according to plaintiff, did it without permission and in violation of plaintiff's rights. For this plaintiff seeks damages.

In the trial court, the United States argued that, on the undisputed facts, plaintiff did not have a cause of action against the Government under either the statutes of the United States or under the Constitution. The argument before the trial court, and again on appeal, largely focused on 28 U.S.C. § 1498. That statute grants an owner of a United States patent the right to damages if the patented invention is used or manufactured by or for the United States without license or lawful right, and, if it applies, it is understood that the statute both waives the sovereign's immunity and gives the Court of Federal Claims jurisdiction to hear the cause.

The trial court concluded that, because of the limitations imposed by § 1498(c), plaintiff on the facts of this case could not state a claim for relief for patent infringement, and so granted the Government partial summary judgment on that issue. On the other hand, the trial court concluded that plaintiff does have a cause of action under the Fifth Amendment to the Constitution for a 'taking' of its patent rights by the Government, a cause of action separate and distinct from the infringement claim.[9] The trial court denied the Government

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[9] The trial court and the majority opinion both treat the problem of the taking claim as one of establishing jurisdiction in the Court of Federal

*1372 summary judgment on that issue. We accepted interlocutory appeal on both rulings.

Although my panel colleagues cannot agree why, they do agree that (1) an owner of a United States patent can be denied the basic protections of the Constitution, and that (2) if *any one step* of a multi-step patented process occurs outside the United States, the Government is immune from liability under § 1498 for its infringement of the patent. They are wrong on both propositions. I would uphold the trial court's conclusion that the taking claim states a cause of action entitling plaintiff to a full trial of the issue, and reverse the trial court's erroneous conclusion regarding § 1498. Since this is the exact opposite of what my colleagues are ruling, I respectfully dissent.

II. Overview

As there are three other opinions in this case, I begin by summarizing the problems I have with my colleagues' collective and separate views. First, in their per curiam opinion, my colleagues' analysis of the § 1498 liability issue consists of one brief paragraph that concludes, "where, as here, not all steps of a patented process have been performed in the United States, government liability does not exist pursuant to section

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Claims. This is incorrect, since a well-pleaded complaint establishes jurisdiction; the legal issue is whether plaintiff has stated a claim for which relief can be granted. Further, with regard to the infringement issue, as the trial court explained, the Government's defense under § 1498(c) is an affirmative defense, and the pleadings clearly establish a well-pleaded complaint. Again, a more accurate description of the issue is whether plaintiff has stated a claim for which relief can be granted. *See Palmer v. United States,* 168 F.3d 1310, 1313 (Fed.Cir.1999) ("[A] court's general power to adjudicate in specific areas of substantive law ... is a question of a court's subject matter jurisdiction," whereas "the question of whether in a specific case a court is able to exercise its general power with regard to the facts peculiar to the specific claim ... is properly addressed as a question of whether the plaintiff has stated a claim upon which relief can be granted.").

1498(a)." Per curiam op. at 1350. They base this conclusion on the erroneous assumption that a cause of action for infringement of a patent by the United States under § 1498 is governed by the limitations of 35 U.S.C. § 271(a), the statute that defines infringement among private litigants, and not by the express terms of 28 U.S.C. § 1498(a), the exclusive statute that defines the Government's liability in similar circumstances.

In his concurring opinion, Judge Gajarsa acknowledges the problem with trying to incorporate the terms of § 271(a) into § 1498(a), but he has been persuaded that we are bound by brief language on the subject found in this court's *NTP* opinion, decided last year, suggesting that incorporation is established law. Though he believes *NTP* is wrong on this point, Judge Gajarsa nevertheless feels bound. Judge Dyk, on the other hand, in his concurring opinion argues that the comment in *NTP* is or should be controlling law.

Because of the way the majority in their per curiam opinion resolve the issues in this case, applying the magical incorporation doctrine to § 1498(a), the trial court's decision that plaintiff's infringement claim is barred by the express terms of subsection (c) dealing with causes that "arise in a foreign country"-the issue that was certified to us-is not addressed at all in the per curiam opinion, nor by Judge Dyk in his concurrence. Judge Gajarsa, however, does address it in his concurring opinion, *see* Gajarsa concurring op. at ***1373** 1360 - 1366, even though, on his view of the statute as stated in the per curiam opinion, subsection (c) has no bearing on the outcome.

Since I do not dispose of plaintiff's infringement claim by rewriting § 1498(a) as the majority chooses to do, I must address the subsection (c) exception. In part IV of this opinion I will explain both why the majority's incorporation assumption has no basis in law, and why the assumed 'binding effect' of the *NTP* precedent is neither binding nor precedent. I will

then explain that, at least with regard to the Tyranno process, the subsection (c) exception does not apply here. And finally I will comment on why the majority's view of the limitations imposed by § 1498 raises significant constitutional concerns.

Second, regarding the takings issue, the per curiam opinion does provide somewhat more analysis, but the analysis is on the wrong subject. According to the per curiam opinion, the takings issue in this case turns on the meaning of an 1894 Supreme Court case, *Schillinger v. United States,* 155 U.S. 163, 30 Ct.Cl. 480, 15 S.Ct. 85, 39 L.Ed. 108 (1894). The meaning of *Schillinger* is then stated in the opinion in one summary sentence, without reference to the facts of the case or the Supreme Court's actual holding. The remainder of the per curiam takings discussion goes off into a lengthy discourse about why other cases decided some years later did not *sub silentio* overrule *Schillinger.* Interesting, but irrelevant. The key is *Schillinger.* As I shall explain next, *Schillinger* does not stand for what the per curiam opinion tells us it does, and thus the majority's conclusion based on their reading of it is wrong. (The concurrences add little to the takings discussion, but where relevant will be addressed below.)

III. The Fifth Amendment Taking Issue

The Fifth Amendment to the Constitution provides a series of protections for the individual against governmental abuses, and concludes: "nor shall private property be taken for public use, without just compensation." This provision has a long and noble history of protecting and preserving property rights against unfettered Governmental seizure, and in so doing of protecting individual freedom and personal integrity from undue government authority.[10]

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[T]he only dependable foundation of personal liberty is the personal economic security of private property.... There is no surer way to give men the courage to be free than to insure them a competence upon which they

It is well understood that this constitutional provision does not preclude the Government from taking private property for public use. Rather, the Constitution guarantees that the citizen will be fully compensated for such a taking. By requiring just compensation the Constitution makes the property owner whole, and it also places a constraint on government action by imposing the cost of such action on the Government's fisc, thus subjecting administrative action to the discipline of public decision-making and legislative authorization. In recent years the Supreme Court has extended the salutary protection of the Fifth Amendment to excessive governmental*1374 regulation-the 'regulatory taking' issue[11] -in addition to the traditional takings area in which the government actually acquires private property interests for its own use-the 'physical taking' issue.

In the case before us, the matter falls into the traditional acquisition area. Plaintiff alleges that the Government took its property-its government-granted patent right-when the Government's subcontractors used the patented method in the production of certain products employed in the F-22 production.[12] On its face, the claim seems straightforward. Prop-

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can rely. Men cannot be made free by laws unless they are in fact free because no man can buy and no man can coerce them. That is why the Englishman's belief that his home is his castle and that the king cannot enter it ... [is] the very essence of the free man's way of life.

Walter Lippmann, *The Method of Freedom* 101-02 (1934).

[11] *See, e.g., Lucas v. S.C. Coastal Council,* 505 U.S. 1003, 112 S.Ct. 2886, 120 L.Ed.2d 798 (1992).

[12] Section 1498 expressly makes the United States liable for the actions of its contractors and subcontractors:

For the purposes of this section, the use or manufacture of an invention described in and covered by a patent of the United States by a contractor, a subcontractor, or any person, firm, or corporation for the Government and with the authorization or consent of the Government, shall be construed as use or manufacture for the United States.

28 U.S.C. § 1498(a).

erty rights are created by law. In the ordinary course, the law is state law. In the case of patents, the law is federal, and the patent statute expressly declares that the rights in an issued patent are property. 35 U.S.C. § 261 ("[P]atents shall have the attributes of personal property."); *see also Consolidated Fruit-Jar Co. v. Wright,* 94 U.S. 92, 96, 24 L.Ed. 68 (1876) ("A patent for an invention is as much property as a patent for land.").

One of the property attributes of a patent grant is the right to exclude all others, including the Government, from "making, using, offering for sale, or selling" the patented invention without the patentee's consent. 35 U.S.C. § 154(a)(1); *see Carl Schenck, A.G. v. Nortron Corp.,* 713 F.2d 782, 786 n. 3 (Fed.Cir.1983) ("The patent right is but the right to exclude others, the very definition of 'property.' "). When a private party uses without authority an invention subject to patent rights, the wrongful use is the tort of infringement. The patentee's judicial remedy is a suit for infringement in accordance with Title 35, United States Code. *See* 35 U.S.C. §§ 271, 281. However, when the wrongful use is committed by the United States Government (or its agents), such suit is not brought under Title 35 but under Title 28, section 1498. (The judicial remedy provided by 28 U.S.C. § 1498 will be discussed in Part IV, below.)

Nevertheless, when the Government chooses to acquire a patent right without prior permission of the owner, there is a way, unrelated to infringement law and unique to the Government, through which a patentee's right to exclude others may be obtained. The Government can exercise its power of eminent domain and simply seize or, as we say, 'take' the property it needs for a public use. In effect, the Government forcibly acquires a license to use the invention. However, because of the Constitution, the Government may do this only if it pays the just compensation demanded by the Fifth Amendment. The trial court examined the question of whether there could be such a taking independent of the terms

of § 1498. The court concluded, correctly, that the answer is yes, and that the Court of Federal Claims has jurisdiction under the Tucker Act to entertain that claim. The Government's challenge to that conclusion is the first question certified to this court. *See Zoltek *1375 Corp. v. United States,* No. 96-166 C (Fed.Cl. Feb. 20, 2004) (order).

On appeal, the panel majority in its per curiam opinion disagrees with the trial court. The opinion relies on its understanding of the *Schillinger* case, in which, according to the per curiam opinion, "the Supreme Court rejected an argument that a patentee could sue the government for patent infringement as a Fifth Amendment taking under the Tucker Act," per curiam op. at 1350, and, we are told, *Schillinger* remains good law. That statement is essentially the entire explanation offered for the opinion's slavish reliance on *Schillinger.*

The problem with the majority's statement of *Schillinger* is that it misconstrues the holding in *Schillinger,* and equates the taking claim with an infringement action, when as a matter of law these are two separate legal claims founded on separate legal bases. The tort of patent infringement is statutorily based and defined, and exists at the discretion of Congress; the right to just compensation for a taking is constitutional, it is not a tort, and it requires no legislative blessing. Furthermore, *Schillinger,* on which the majority bases its result, was not a taking case at all.

Schillinger filed a petition in the Court of Claims for damages for alleged unauthorized use of his patent by the Government. At the time (1894), it was understood that the jurisdiction of the Court of Claims for suits against the United States lay in contract, but not in tort. The Court of Claims held that since Schillinger's suit did not involve a contract, either expressed or implied, on the part of the Government for the use of the patent, the petition was outside of the jurisdiction of that court. The Supreme Court agreed.

The Supreme Court said "[t]hat this action is one sounding in tort is clear." 155 U.S. at 169, 15 S.Ct. 85. The Court opined that the Court of Claims has no jurisdiction of claims against the Government for mere torts. "Some element of contractual liability must lie at the foundation of every action." *Id.* at 167, 15 S.Ct. 85. The Court restated "the frequent ruling of this court that cases sounding in tort are not cognizable in the court of claims." *Id.* at 169, 15 S.Ct. 85. Since the cause of action was for tort, and not contract, the Court affirmed the trial court's dismissal of the suit.

In dissent, Justice Harlan first asked the question, "Can a suit be maintained against the United States in the court of claims, as upon contract, for the reasonable value of such use of the patentee's improvement?" *Id.* at 173, 15 S.Ct. 85 (Harlan, J., dissenting). He argued that the constitutional provision for just compensation placed an implied *contractual* duty on the Government to pay for what it used, and that plaintiff could waive the tort and sue on the contract.

He further noted that "[t]here is another view of the case which is independent of mere contract." *Id.* at 179, 15 S.Ct. 85 (Harlan, J., dissenting). The newly enacted Tucker Act of 1887 for the first time gave the Court of Claims jurisdiction to hear and determine "all claims founded upon the constitution of the United States." [13] Justice Harlan observed that "[i]f the claim here made to be compensated for the use of a patented invention is not founded upon the constitution of the United States, it would be difficult to ***1376** imagine one that would be of that character." *Id.* (Harlan, J., dissenting). But the Court majority gave scant attention to this argument; it dismissed it with the back of its hand, stating summarily that such a broad reading could be applied to every other provision of the Constitution as well as to every law of Congress.

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[13] Act of March 3, 1887, 24 Stat. 505.

What is critical to appreciate is that when *Schillinger* was decided in 1894, the judicial treatment of the then-new Tucker Act provision cited by Justice Harlan was still in its early stages of development. It was not until some years later, and the Supreme Court's decision in *Jacobs v. United States,* 290 U.S. 13, 54 S.Ct. 26, 78 L.Ed. 142 (1933), that the identity of a separate, non-statutory, constitutional basis for takings remedies under the Fifth Amendment emerged. Along with that understanding came the understanding that the opening clause of the Tucker Act provides the Court of Claims (now the Court of Federal Claims) with a separate jurisdictional basis for such actions, separate from its other bases.

In *Jacobs* the Supreme Court left no doubt that a constitutional 'taking' claim was not simply another version of the typical Tucker Act suit against the Government. The narrow issue before the Court was whether plaintiff, whose Fifth Amendment taking claim against the Government for flooding of its land had already been adjudicated in its favor, was entitled to interest on its award. If the taking suit against the Government was limited to traditional statutory remedies, the answer was no, as no statutory provision for interest had been provided. The Court of Appeals had so held. The Supreme Court reversed, and awarded interest, stating that claims for just compensation are grounded in the Constitution itself:

> The suits were based on the right to recover just compensation for property taken by the United States for public use in the exercise of its power of eminent domain. That right was guaranteed by the Constitution. The fact that condemnation proceedings were not instituted and that the right was asserted in suits by the owners did not change the essential nature of the claim. *The form of the remedy did not qualify the right. It rested upon the Fifth Amendment. Statutory recognition was not necessary. A promise to pay was not necessary. Such a promise was implied because of the duty to pay*

> *imposed by the amendment. The suits were thus founded upon the Constitution of the United States.*

Id. at 16, 54 S.Ct. 26 (emphasis added).

That has been the law at least since 1933. Today a cause of action under the Fifth Amendment's taking clause is understood to be neither a tort claim nor a contract claim, but a separate cause arising out of the self-executing language of the Fifth Amendment. As the Supreme Court recently explained in *First English Evangelical Lutheran Church of Glendale v. County of Los Angeles:*

> [G]overnment action that works a taking of property rights necessarily implicates the "constitutional obligation to pay just compensation." We have recognized that a landowner is entitled to bring an action in inverse condemnation as a result of " 'the self-executing character of the constitutional provision with respect to compensation.' " ... *Jacobs,* moreover, does not stand alone, for the Court has frequently repeated the view that, *in the event of a taking, the compensation remedy is required by the Constitution.*

*1377 482 U.S. 304, 315-16, 107 S.Ct. 2378, 96 L.Ed.2d 250 (1987) (citations omitted) (emphasis added).

Furthermore, there is no longer any question that the opening clause of the amended Tucker Act covering "all claims founded upon the constitution of the United States" provides the Court of Federal Claims with jurisdiction over such claims. How else could Fifth Amendment actions be brought today in the Court of Federal Claims for inverse condemnation, *see, e.g., Hendler v. United States,* 952 F.2d 1364 (Fed.Cir.1991), or for regulatory takings, *see, e.g., Fla. Rock Indus., Inc. v. United States,* 18 F.3d 1560 (Fed.Cir.1994)?

In the case of inverse condemnation takings, such as is the case here, the Government has not used its eminent domain

power affirmatively, but is alleged by a plaintiff to have committed by Government action a taking of private property without the just compensation required by the Fifth Amendment. If these cases are considered to be based on tort, the Court of Federal Claims would be without jurisdiction as it remains well established that that court has no general tort jurisdiction. And, as in regulatory takings cases as well, there is no element of contractual or consensual understanding between the owner whose property is taken and the Government that takes it. If traditional contract-based jurisdiction were required under the Tucker Act, the Court of Federal Claims would be without jurisdiction because there is no contract. Nevertheless, for the reasons explained by the Supreme Court in *First English,* the Court of Federal Claims today under the Tucker Act hears and decides both inverse condemnation and regulatory takings cases, and we review them on appeal. Whatever relevance the argument in *Schillinger* may have had to constitutional takings back in 1894 regarding contract and tort jurisdiction in the Court of Claims, it has none now.[14]

In the case before us, in response to the trial court's instructions plaintiff amended its pleading to make clear that its Fifth Amendment takings claim was separate and distinct from the statutory infringement claim. It is established law that the Constitution creates its own remedy, and the Tucker Act expressly gives jurisdiction over such constitutional claims to the Court of Federal Claims. Plaintiff has alleged a property interest in its patent, and a taking of that interest by the United States. As the trial court correctly concluded,

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[14] Since *Schillinger* is not relevant to the question of whether plaintiff has a taking claim, the per curiam's discourse regarding whether *Crozier v. Fried. Krupp Aktiengesellschaft,* 224 U.S. 290, 32 S.Ct. 488, 56 L.Ed. 771 (1912), decided eighteen years after *Schillinger,* "effectively overruled *Schillinger sub silentio,*" per curiam op. at 1350, is equally irrelevant to the question of whether a separate cause of action exists for a constitutional taking of a patent right.

plaintiff's non-frivolous allegation of a constitutional taking claim comes within the jurisdiction of the Court of Federal Claims and entitles plaintiff to a trial on the merits. Summary judgment in favor of the Government as the majority dictates is wrong as a matter of law, and is a denial of plaintiff's constitutional rights.

In response to this explanation of established law, the per curiam opinion simply repeats its confusion over statutory remedy and constitutional right. The answer to the takings issue, we are told, "is simple. Unlike regulatory takings and the inverse condemnation of real property, the 'taking' of a license to use a patent creates a cause of action under § 1498." Per curiam op. at 1353. Consequently, since in the majority's*1378 view there is no remedy on these facts under § 1498, there is no constitutional right either. The notion that the constitutional right to just compensation is defined by the terms of a statute- § 1498 in this case-is elaborated in Judge Gajarsa's concurring opinion, in which he opines that "it is the responsibility of Congress, and of Congress alone to decide whether, and to what extent, it will permit the courts to help it fulfill its Constitutional obligations under the Takings Clause." Gajarsa concurring op. at 1367.

This is a remarkable view of the Constitution. Can it be that Congress, by a stroke of the legislative pen, may withhold the remedies and revoke the protections given to the citizenry by the Fifth Amendment, not to mention the other Articles of the Bill of Rights to the Constitution? Fortunately no authority exists for such a radical doctrine of legislative preemption over constitutional right. Wisely, Congress has never attempted to establish one, and in fact Congress in the Tucker Act expressly provides for the courts' jurisdiction over these takings claims. To argue that Congress in enacting § 1498 successfully cabined the Constitution is the reverse of the understanding that the Constitution trumps legislation; it hardly seems appropriate for this court to be the first to announce such a contrary view of constitutional doctrine.

Judge Dyk in his concurring opinion concludes that, since under his view of the case the Government's conduct was non-infringing (i.e., § 1498(a) was not violated because § 271(a) was not), there was no wrong and thus no basis for a takings claim. Dyk concurring op. at 1370. As a result, we do not know Judge Dyk's view of the takings issue directly, though by joining the per curiam opinion he presumably shares Judge Gajarsa's view of § 1498, whatever it is understood to be, as the sole remedy for a taking of a patent right.

In my view, the existence of a proper takings claim is an issue wholly independent of whether under § 1498 there is a valid claim that triggers a remedy under that statute. The latter is a question of statutory right granted by Congress under its legislative authority pursuant to the Constitution; the former is a matter of constitutional principle the vindication of which Congress has properly provided for by remedy in the Court of Federal Claims pursuant to the provisions of the Tucker Act. The mixing and merging of these two separate legal concepts in the manner the majority has done is incorrect as a matter of law, and leads them to an erroneous conclusion.

IV. The Section 1498 Infringement issue

The second issue before us is whether plaintiff has stated a separate cause of action under 28 U.S.C. § 1498(a) for damages based on a claim of unauthorized use by the Government. The answer is yes. The per curiam opinion's decision to the contrary is based on the proposition that there can be no Government liability under § 1498(a) unless the same conduct, if done by a private party, would constitute infringement under 35 U.S.C. § 271(a). However, that statement, blending the two disparate sections of the statutes into one, has no basis in the statutory language, nor is there binding precedent of this court in support of such a proposition.

In his concurring opinion, Judge Gajarsa acknowledges the problem with the incorporation theory, and therefore he

presents *1379 an alternative argument that reaches the same result based on an interpretation of § 1498(c). For the reasons I shall explain, that interpretation of subsection (c) is not correct. Finally, I conclude this section with a comment about the constitutional concerns raised by the majority's interpretation of § 1498.

1.

The per curiam opinion concludes that, for the Government to be liable under § 1498(a) for the unauthorized use of a patented process, each claimed step must be performed *in the United States.* Nothing in § 1498(a) speaks about performance in the United States; that notion is come to only by incorporating into § 1498(a) the requirement for infringement by a private party under 35 U.S.C. § 271(a): "whoever without authority ... uses ... any patented invention, *within the United States* ..., infringes the patent." (Emphasis added.) Contrast that with the actual language of § 1498(a): "Whenever a [patented] invention is used ... by or for the United States ... without lawful right ..., the owner's remedy shall be by action against the United States." Section 1498(a) simply does not contain the same territorial limitation on infringement as § 271(a). Congress obviously knew how to write limiting language when it wanted to; its absence means that there is nothing in subsection (a) of § 1498 that requires that the infringing activity, or any part of it, take place in the United States; that is the role played by subsection (c), discussed below.

I do agree with one premise relied on by the majority-that under either § 1498(a) or § 271(a) the use of a method claim in order to infringe requires that each and every step of the claimed process be performed. There is no basis, however, for reading into § 1498(a) the requirement that each step be performed *in the United States.*

28 U.S.C. § 1498(a) makes no reference to 35 U.S.C. § 271(a), nor does anything in § 1498 suggest any link be-

tween actions brought under Title 28 and those brought under the authority of Title 35. Indeed, though there may be similarities between the two, our cases make it clear that the statutes in Title 35 dealing with infringement litigation between private parties have no direct application to infringement litigation against the United States under 28 U.S.C. § 1498. *See Motorola, Inc. v. United States,* 729 F.2d 765, 768 (Fed.Cir.1984) ("Although a section 1498 action may be similar to a Title 35 action, it is nonetheless only parallel and not identical."); *see also Leesona Corp. v. United States,* 220 Ct.Cl. 234, 599 F.2d 958, 968-69 (1979).

The per curiam opinion, rather than interpreting the relevant statutes, relies on what Judge Gajarsa refers to in his concurring opinion as the "*NTP* proposition," to the effect that infringement under § 271(a) is necessary for government liability under § 1498. *See NTP, Inc. v. Research in Motion, Ltd.,* 418 F.3d 1282, 1316 (Fed.Cir.2005). Judge Gajarsa points out that the evolution of this broad statement began with our predecessor court's holding in *Decca Ltd. v. United States,* 225 Ct.Cl. 326, 640 F.2d 1156 (1980). *Decca* involved a suit against the Government under § 1498, and stated that under that section the Government can be liable only for direct infringement and not inducement of infringement or contributory infringement. *Id.* at 1167. Judge Gajarsa correctly describes how this court mischaracterized that holding in a footnote in *Motorola. See Motorola,* 729 F.2d at 768 n. 3. In that case, a Claims Court decision had ***1380** purported to incorporate 35 U.S.C. § 287-the patent marking statute-into § 1498 as an additional government defense. The Federal Circuit reversed, holding that incorporation was incorrect. The *Motorola* footnote, intended to support the no-incorporation principle by illustrating the various situations in which § 1498 differs from Title 35, at the end of the lengthy footnote managed to confuse the two in a somewhat incoherent sentence, a sentence that is at best mere dictum.

Where I part company with Judge Gajarsa is in the next evolutionary step, in which he concludes that the relationship between § 271(a) and § 1498(a) suddenly became binding precedent of this court in *NTP*. The parties in *NTP* were NTP, a U.S. corporation, the patent owner, and Research in Motion, a Canadian corporation, the accused infringer. The suit was under Title 35. The United States was not a party to the suit, and 28 U.S.C. § 1498 was not at issue.

In *NTP*, the accused system consisted of many components, one of which was a relay component located in Canada. In determining whether the accused infringer used the system "within the United States," as required for infringement under § 271(a), this court looked for guidance to *Decca Ltd. v. United States*, 210 Ct.Cl. 546, 544 F.2d 1070 (1976), the facts of which were not unlike those of *NTP*.[15]

In *Decca*, the accused infringer was the Government, and the suit was under § 1498. The question was whether § 1498(c)-the subsection exempting claims arising in a foreign country-precluded Government liability when some parts of the Omega positioning system were used worldwide. The Court of Claims determined that the Government was nevertheless liable for the alleged infringing use because control and beneficial use of the system were not foreign-based. *Decca*, 544 F.2d at 1083. *NTP* simply applied the same reasoning to conclude that the presence of RIM's relay component in Canada did not preclude a jury from finding that use of the accused system took place in the United States, as required under § 271(a).

It is not surprising that the *NTP* panel found the *Decca* decision "instructive" because of the similarity in fact patterns. The result in *NTP* could have been justified without

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[15] Note that there are two *Decca* decisions, one in 1976 addressing the liability phase of the case, 210 Ct.Cl. 546, 544 F.2d 1070, and one in 1980 addressing the damages phase, 225 Ct.Cl. 326, 640 F.2d 1156.

any formal 'linking' of the *Decca* statute and the *NTP* statute. The precise 'linking' statement in *NTP* is: "Although *Decca* was decided within the context of section 1498, which raises questions of use *by* the United States, the question of use *within* the United States also was implicated because direct infringement under section 271(a) is a necessary predicate for government liability under section 1498." *NTP*, 418 F.3d at 1316 (citing *Motorola*, 729 F.2d at 768 n. 3). Since government liability under § 1498 was not at issue in *NTP*, the statement is not in any sense necessary to the holding in *NTP*, and it is at best a passing comment about a statute not before the court. The discussion that precedes and follows the comment makes clear that the *NTP* court understood this. There exists no binding precedent of this court mandating that § 271(a) be incorporated into § 1498(a).

Judge Dyk in his concurring opinion argues for making the dictum in *NTP* controlling*1381 law. He supports his *ipse dixit* by piecing together bits of language from legislative history found in the Congressional Record, language from cases on different matters, and broad conclusions about what Congress could not have meant by what it did not say. His position has no basis in the statutory language and, as Judge Gajarsa cogently points out, ignores the role of § 1498(c), which is the only provision addressing the § 1498 extraterritoriality issue. If § 1498(a) incorporates a "within the United States" territoriality requirement, so that the Government is liable only when its infringing act occurs in the United States, what is the purpose of § 1498(c), the 1960 amendment to § 1498 that exempted Government liability for claims arising in a foreign country? If the Government's infringing act must take place in the United States in order for the Government to be liable under § 1498(a), then exempting Government actions that arise in a foreign country under § 1498(c) is unnecessary. It is a court's obligation to make every part of a statute have meaning. The position advocated by Judge Dyk renders § 1498(c) meaningless.

2.

Because § 1498(a), properly understood, does not incorporate the "within the United States" requirement of § 271(a), I agree with Judge Gajarsa's alternative view that we must look to § 1498(c) to determine how and when the Government's liability under § 1498(a) is subject to geographical constraints. Section 1498(c) reads in its entirety: "The provisions of this section shall not apply to any claim arising in a foreign country." At the outset it is well to remember that the word "claim" in § 1498(c) means the same as 'claim' in a pleading, i.e., a 'cause of action.' Thus we are looking for the earmarks of a cause of action, and where it arises.

As noted above, I agree with Judge Gajarsa's answer to the first question he poses in Part II of his concurring opinion: a patented method is used within the meaning of § 1498(a) only if all steps of the claimed process are performed. Gajarsa concurring op. at 1358 - 1360. That proposition seems clear enough, and correct. It follows that in order for a cause of action to arise under § 1498(a) for use of a method patent all steps of the method must have been practiced by the alleged infringer.

The next question then is how does subsection (c) of § 1498 relate to patent infringement under subsection (a), i.e., when and how does a cause of action for patent infringement against the United States arise in a foreign country? The language of subsection (c) does not answer the question, nor is there anything in its legislative history that is particularly helpful. To resolve the issue before us we need not answer the question in its broad terms-the issue before us is a narrow one. When the use of a method patent is alleged, and we have concluded that all of the steps of the method must be performed in order for an infringement of the patent to have occurred, what are the requirements, with particular regard to territorial location, for the performance of these steps?

Where must the steps be performed in order for the cause of action to arise "in a foreign country"?

Looking across the range of choices, there are three. The first and easiest case is when each and all of the steps are completed within the United States. Here there is no foreign entanglement whatsoever, so subsection (c) has no application and the Government is subject to the requirements of § 1498(a). That case is not before us, but it is useful to have it in mind ***1382** as we pursue the remainder of the analysis. The second and next easiest case is when each and all of the steps are completed in a foreign country. If the prohibition in subsection (c) is to have meaning in the context of using a method patent, it must apply here. In the case before us, the Nicalon silicon carbide fibers were manufactured into sheets in Japan, the record indicating that all of the steps of the patented invention were performed there. Even though those sheets were imported into the United States and used in the Government's fighter aircraft, summary judgment for the Government under § 1498 would be appropriate because this would constitute a "claim arising in a foreign country," and subsection (c) affords the Government a complete defense.

The interpretive problem becomes more difficult in the third case, in which some of the steps of the method patent are practiced abroad, and some in the United States. That is the situation with the silicide fiber mats made from Tyranno fibers, since the Tyranno fibers are manufactured in Japan and then processed into mats in the United States, allegedly requiring use of one or more of the steps of the patented method in both places. In dealing with this fact pattern, Judge Gajarsa in his concurring opinion tells us that each, i.e., all, of the steps must be performed within the United States in order for a cause of action to avoid the arising-in-a-foreign-country exception. Put another way, if *any one step* occurs outside the United States, it is a cause of action that arises in a foreign country, and thus is barred by § 1498(c).

That cannot be the law. A cause of action does not 'arise' in a place just because any one step of a multi-step process patent occurs there. Beyond that, Judge Gajarsa's position cannot be reconciled with the proposition that all steps must be completed before a compensable use, i.e., infringement of a method patent, occurs under § 1498(a).

I understand my colleague's dilemma-there is no guidance in the statute, in the legislative history, or in prior cases as to what to make of this provision when the steps of a method patent have been performed both in and out of the country. But that is no reason to abandon logical analysis in preference for a policy-rooted and result-driven conclusion. The logic of the statute and what seems to me to be the basic policy underlying § 1498 is that when the Government has allegedly benefited from infringing conduct by its contractors or subcontractors, and when fairness decrees that the Government be held responsible for its wrongs-the fundamental principle underlying § 1498(a)-then the fact that one or another step of a process occurred outside the United States should not alone immunize the Government from liability.

This case involves patent claims utilizing numerous steps in the manufacture of a specialized high-technology material of unique interest to the Government. There is no basis in law or policy for absolving the Government from liability, now and forever, for the wrongful conduct of its agents just because any one step of a multi-step patented method can be found to have occurred outside the United States-that is an invitation to strategic conduct if ever there was one. I conclude that the Government is liable under § 1498(a) for an unauthorized use of a method patent unless *all* steps of the method are practiced abroad, thus causing the claim to be one "arising in a foreign country." *See* § 1498(c).

***1383 3.**

Finally, because the per curiam opinion and at least one of the concurring opinions devotes so much time to the cases

construing § 1498, I cannot, even in the interest of brevity, ignore the offered analyses. The forerunner of § 1498, enacted in 1910, was a straightforward piece of legislation. The 1910 statute was entitled "An Act to Provide Additional Protection for Owners of Patents of the United States, and for Other Purposes," and provided that "whenever an invention described in and covered by a patent of the United States shall hereafter be used by the United States without license of the owner thereof or lawful right to use the same, such owner may recover reasonable compensation for such use by suit in the court of claims." [16] A straightforward reading of the statute would be that this is a waiver by Congress of the Government's sovereign immunity from the tort of patent infringement, and authority to sue the Government for the tort in the Court of Claims.

That, however, was not the way the Supreme Court initially viewed the statute when it came before the Court two years later in the case of *Crozier v. Fried. Krupp Aktiengesellschaft,* 224 U.S. 290, 32 S.Ct. 488, 56 L.Ed. 771 (1912). Plaintiff Fried. Krupp, the patentee, sought a permanent injunction against Wm. Crozier, the Chief of Ordnance of the United States Army, for unauthorized use of its patented invention regarding guns and gun carriages. The Government demurred on the grounds that the Court of Claims lacked jurisdiction over the suit.

The Supreme Court, after reviewing the history of infringement suits against the Government up to and including *Schillinger,* turned to the new statute:

> In substance, therefore, in this case, in view of the public nature of the subjects with which the patents in question are concerned and the undoubted authority of the United States as to such subjects to exert the power of eminent domain, the statute, looking at the substance

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[16] Act of June 25, 1910, ch. 423, 36 Stat. 851.

> of things, provides for the appropriation of a license to use the inventions, the appropriation thus made being sanctioned by the means of compensation for which the statute provides.

224 U.S. at 305, 32 S.Ct. 488.

Working through the prolix language, it seems that the Court chose not to read the new statute as a simple authorization for suits for the tort of patent infringement against the Government, but instead read the statute as an illustration of the Government's obligations under the Fifth Amendment. Why the Court thought the statute was the one and not the other is not explained. Perhaps it was the long-standing rule, which the Court had only recently reiterated in *Schillinger,* that the Court of Claims did not have jurisdiction over torts. Perhaps it was discomfort with the permanent injunction being sought against the Army's efforts to modernize its guns-after all Fried. Krupp was a German corporation and the drums of war, though still distant, were beating. Perhaps it was a bow to Justice Harlan's dissent in *Schillinger* arguing for using the Fifth Amendment to allow a recovery, though if the statute authorized a tort action, a power Congress clearly has,[17] there would be no need for a constitutional justification. Whatever the explanation, ***1384** the Court in *Crozier* was clear: "[W]e think there is no room for doubt that the statute makes full and adequate provision for the exercise of the power of eminent domain for which, considered in its final analysis, it was the purpose of the statute to provide." *Id.* at 307, 32 S.Ct. 488.

Does it matter which of these underlying theories-tort or constitution-supports a plaintiff's suit under § 1498? In some cases, it would not seem to matter. However, despite the fact that in light of modern cases our adherence to the *Crozier*

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[17] *See* Federal Tort Claims Act, 28 U.S.C. § 1346(b).

theory has been called "at best anachronistic and at worst misleading," [18] in other cases the underlying theory has had an effect on the outcome; such cases continue to recite the taking theory. *See, e.g., Hughes Aircraft Co. v. United States,* 86 F.3d 1566, 1571 (Fed.Cir.1996) ("The government's unlicensed use of a patented invention is properly viewed as a taking of property under the Fifth Amendment through the government's exercise of its power of eminent domain and the patent holder's remedy for such use is prescribed by 28 U.S.C. § 1498(a)."); *Leesona,* 599 F.2d at 964 ("When the government has infringed, it is deemed to have 'taken' the patent license under an eminent domain theory, and compensation is the just compensation required by the fifth amendment.").

If either the majority's incorporation theory or Judge Gajarsa's alternative theory prevails, it will certainly matter. To the extent § 1498 is understood to incorporate into its provisions the entitlements provided by the Fifth Amendment's 'taking' clause, any statutory limitation providing less than just compensation would be unconstitutional. Reading § 1498 to provide that any one step in a method, no matter how strategically planned, will insulate the Government from its own wrongdoing is hardly consonant with the purposes of the Fifth Amendment.

Judge Gajarsa responds to my concerns about the takings issue, and his merger of the constitutional requirement for just compensation with § 1498, by arguing that there is no constitutional requirement for a *judicial* remedy for a taking. *See* Gajarsa concurring op. at 1366 - 1367 & nn. 13-14. He points out that Congress could choose to provide the remedy directly by legislation. Perhaps; at least so long as the constitution-

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[18] Thomas F. Cotter, *Do Federal Uses of Intellectual Property Implicate the Fifth Amendment?*, 50 Fla. L.Rev. 529, 555 (1998) ("[T]he habit, in which both the Federal Circuit and the Court of Federal Claims continue to indulge, of invoking the takings mantra when discussing section 1498 claims is at best anachronistic and at worst misleading.").

ally required remedy is provided, that may be true.[19] But Congress, *1385 since the creation of the Court of Claims, prefers not to spend its time writing special bills; instead, it has provided a judicial remedy for takings claims through the Tucker Act and that remedy meets the requirements of the Constitution. If the judicial remedy is limited to the provisions of § 1498, as my colleagues argue, then that section must also meet the requirements of the Constitution. The argument that Congress could satisfy the Constitution by doing it all itself on an individual basis is academically interesting, but hardly relevant.

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In sum, plaintiff alleges *inter alia* that the Government has infringed its United States patent under the terms of United States patent law; on appeal, the issue is whether plaintiff has stated a cause of action under § 1498 for which relief could be granted. I would hold plaintiff has done that, at least with regard to the silicide fiber mats made from Tyr-

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[19] *Lynch v. United States,* 292 U.S. 571, 54 S.Ct. 840, 78 L.Ed. 1434 (1934), from which Judge Gajarsa seeks support (and which in turn relied for support on the now-overtaken *Schillinger* opinion), stands on a quite different footing than an inverse condemnation case. *Lynch* was an insurance contract case, in which the plaintiff's decedent, by choosing to contract with the Government presumably for his own benefit, had chosen to place his rights in the hands of a sovereign who asserts that it can determine contractual rights as it wants. Whether viewed as a contract remedy or, as Lynch tried to do, as some sort of a taking, the plaintiff's decedent had for good or ill put himself at risk of the Government's claim that it is free to change its policy. In *Lynch,* the case turned on whether Congress, in revoking the insurance program, had withdrawn its consent to be sued under existing contracts-the Court held it had not. 292 U.S. at 583, 54 S.Ct. 840. Whether the Fifth Amendment is available as a remedy in cases involving mutual rights under Government contracts is not at issue here. The issue here is whether the Fifth Amendment protects the individual from the unilateral acts of the sovereign, when inverse condemnation is called for, and it makes no constitutional sense to say that persons who did not choose in the first instance to deal with the Government are nevertheless at the mercy of the Government's willingness to pay.

anno fibers, and would remand the matter to the trial court for further proceedings on this issue, as well as on the constitutional taking claim.

APPENDIX B

51 Fed. Cl. 829

United States Court of Federal Claims.
ZOLTEK CORPORATION, Plaintiff,
v.
The UNITED STATES, Defendant.
No. 96-166C.

March 14, 2002.

OPINION

DAMICH, Judge.

I. Introduction

This action is before the Court on Defendant's Motion for Partial Summary Judgment pursuant to Rule 56 of the Court of Federal Claims (RCFC). Defendant contends that 28 U.S.C. § 1498(c) bars Plaintiff from receiving compensation for the use of methods claimed in U.S. Patent No. Re. 34,162 ("the '162 Patent") in the manufacture of silicon carbide fiber sheet products used by *831 the F-22 fighter program because the claim arises in a foreign country. For the reasons stated herein, the Defendant's Motion for Partial Summary Judgment is STAYED pending additional briefing by the parties on the issues stated herein.

II. Background

Zoltek Corporation (hereinafter "Plaintiff") is the owner of the '162 Patent. Plaintiff alleges that the process used by or for the United States Government (hereinafter "Defendant") to manufacture silicon carbide fiber mats[1] and pre-

[1] A mat is a fibrous reinforcing material comprised of chopped or swirled filaments bound in order to maintain form. Mat products are typically available in blankets of various weights and sizes.

pregs[2] used in the F-22 fighter aircraft infringes the claims of the '162 Patent either directly or under the doctrine of equivalents. According to Plaintiff, the unauthorized use by Defendant of the processes claimed in the patent entitles it to compensation under 28 U.S.C. § 1498(a). According to 28 U.S.C. § 1498(a), an aggrieved party may recover monetary damages from the United States for the unlicensed manufacture or use of that party's patented invention. Section 1498(a) reads in relevant part:

> Whenever an invention described in and covered by a patent of the United States is used or manufactured by or for the United States without license of the owner thereof or lawful right to use or manufacture the same, the owner's remedy shall be by action against the United States in the United States Court of Federal Claims for the recovery of his reasonable and entire compensation for such use and manufacture .... For the purposes of this section, the use or manufacture of an invention described in and covered by a patent of the United States by a contractor, a subcontractor, or any person, firm, or corporation for the Government and with the authorization or consent of the Government, shall be construed as use or manufacture for the United States.

28 U.S.C. § 1498(a). According to 28 U.S.C. § 1498(c), an otherwise valid claim for damages under 28 U.S.C. § 1498(a) is barred where the "claim aris[es] in a foreign country."[3]

This case arose out of Defendant's alleged use of the invention claimed in the '162 Patent. Although originally focused on the development and production of the B-2 Stealth

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[2] A prepreg, better known as a preimpregnated material, is a material typically used in the manufacture of high performance composites.

[3] 28 U.S.C. § 1498(c) reads: "The provisions of this section shall not apply to any claim arising in a foreign country."

Bomber, the litigation now centers on the manufacture and production of the new F-22 fighter. The F-22 fighter is currently under development by the United States Government. Defendant has contracted with Lockheed Martin Corporation (hereinafter "Lockheed") to design and build the F-22 fighter. Lockheed has subcontracted with other companies to provide fiber sheet products for the F-22 fighter. Two fiber sheet products are at issue in the present action. The first product is a prepreg made from Nicalon fiber, which is a product of the Nippon Carbon Company (a Japanese company) and is distributed by COI Ceramics, Inc., in the United States. There is no evidence before the Court that indicates whether the Nicalon fibers are manufactured inside or outside of the United States. The second product is a silicon carbide fiber mat product made from Tyranno fibers. Although Defendant asserts that Tyranno fibers are manufactured exclusively in Japan by Ube Industries, this remains a genuine issue of material fact. Plaintiff has admitted, however, that all Tyranno fibers used in the mat product were manufactured outside of the United States. There is no evidence before the Court demonstrating the location of the processing of the Tyranno fibers into mat products.

This Motion for Partial Summary Judgment was brought by Defendant on July 5, 2001. Oral argument was held on December 13, 2001.

The issue before the Court is whether 28 U.S.C. § 1498(c) precludes recovery from the United States for the use of a patented process*832 without a license where at least some elements of the process claim are practiced outside of the United States by a government contractor.

Plaintiff argues that the Court should first embrace the idea that section 1498(c) is irrelevant to this inquiry because the silicon carbide sheets manufactured by the accused process fall squarely within the plain terms of section 1498(a). Plaintiff contends that because the clause found in section

1498(a) is not expressly limited to domestic contractors or subcontractors, section 1498 must be interpreted to mean that if infringing activity committed in a foreign country falls within the boundaries of section 1498(a), then section 1498(c) does not apply. Alternatively, Plaintiff argues that Congress intended for section 1498 to apply to those forms of direct infringement committed abroad as defined in 35 U.S.C. § 271.[4] Plaintiff argues that construing the statute otherwise would result in Plaintiff having no available claim against Lockheed (the government contractor) because it would be barred by section 1498(a) [5] and no available claim against the United States because it would be barred by section 1498(c). Plaintiff asserts that such a result is against congressional intent that infringement liability should not be dependent upon the identity of an infringer, yet Plaintiff fails to identify where Congress expressed this intent.

Defendant argues that the Court should interpret the phrase "claim arising in a foreign country" to mean that if any part of the patented invention is practiced in a foreign country, the claim arises in that country. Defendant contends that there is no genuine issue of material fact as to whether Nicalon and Tyranno are manufactured in a foreign country. Thus, because each product is manufactured in a foreign country, any claim based on the manufacture of these prod-

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[4] 35 U.S.C. § 271 is a statute that defines patent infringement between private parties. Significantly, section 271(g) makes it an infringement to import into the United States a product made from a process patented in the United States.

[5] Plaintiff has no cause of action against Lockheed because the allegedly infringing activity is considered "use or manufacture for the United States" under section 1498(a). Section 1498(a) protects contractors or subcontractors from suit for patent infringement if the infringing act is committed "with the authorization or consent of the government ...." In these cases, "[t]he [patent] owner's remedy shall be by action against the United States ...." The parties agree that Lockheed cannot be sued under 35 U.S.C. § 271 for infringement of the '162 Patent.

ucts must "arise in a foreign country" and is barred by section 1498(c).

III. Discussion

A. Standard for Summary Judgment

Summary judgment is appropriate when there are no genuine issues of material fact and the moving party is entitled to judgment as a matter of law. RCFC 56(c); *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 247, 106 S.Ct. 2505, 91 L.Ed.2d 202 (1986); *Jay v. Secretary, DHHS*, 998 F.2d 979 (Fed.Cir.1993). The party moving for summary judgment bears the initial burden of demonstrating the absence of any genuine issue of material fact. After adequate time for discovery and on motion, summary judgment is appropriate against a party who fails to make a showing sufficient to establish the existence of an element essential to that party's case, where that party will bear the burden of proof at trial. *Celotex Corp. v. Catrett*, 477 U.S. 317, 325, 106 S.Ct. 2548, 91 L.Ed.2d 265 (1986). The court must resolve any doubts about factual issues in favor of the non-moving party, *Chiuminatta Concrete Concepts, Inc. v. Cardinal Indus., Inc.*, 145 F.3d 1303, 1307 (Fed.Cir.1998), and draw all reasonable inferences in its favor. *See Gasser Chair Co. v. Infanti Chair Mfg. Corp.*, 60 F.3d 770, 773 (Fed.Cir.1995).

B. Nicalon

Based on the facts before the Court, it is unknown whether Nicalon fibers (and the resultant mats produced from these fibers) have been manufactured outside of the United States. Due to the exclusion of Defendant's Exhibit 18, this Court does not have any evidence available to it regarding the location of the manufacture of Nicalon fibers ***833** for purposes of summary judgment.[6] Thus, it is not clear from the

[6] Defendant offered into evidence a facsimile from Mr. Ron Zipprich, Director of New Business & Technology for COI Ceramics, Inc., to show that Nicalon fibers have never been manufactured in the United States.

evidence before the Court where the claim arises with respect to Nicalon. Because a sufficient record is lacking, the crucial question is whether Plaintiff or Defendant will carry the burden of proving at trial that the fibers were or were not manufactured in a foreign country. If Plaintiff carries the burden of proof with respect to section 1498(c), then it is presently lacking an essential element of its case, and summary judgment would be appropriate if there has been adequate time for discovery. If Defendant carries the burden of proof, the lack of evidence in the record will be construed in favor of the non-moving party (Plaintiff), and summary judgment must be denied with respect to claims arising out of the manufacture of Nicalon fibers.

An examination of the language and construction of section 1498 as a whole indicates that section 1498(c) was intended as an affirmative defense for the government, rather than as an additional element for a plaintiff to prove in its case. Section 1498(a) clearly describes the circumstances in which the owner of a patent is entitled to sue the government for "reasonable and entire" compensation. 28 U.S.C. § 1498(a). More precisely, section 1498(a) fully sets out what a plaintiff must prove in the Court of Federal Claims in order to be compensated for the use or manufacture by the United States of its patented invention. Section 1498(c), on the other hand, provides that even where a plaintiff meets all of the requirements that establish a claim for compensation under 1498(a), the provisions allowing for the recovery of just and reasonable compensation "shall not apply" if it is demonstrated that the claim arises in a foreign country. Importantly, section 1498(c) is worded negatively. By indicating when section 1498(a) does not apply, rather than indicating

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The Court found that the letter was hearsay and did not fall under any hearsay exception. However, because the motion has been stayed, the Court invites the parties to submit additional evidence that may establish the absence of a genuine issue of material fact as to the location at which Nicalon fibers are manufactured.

the instances where section 1498(a) does apply, Congress has signaled that section 1498(c) should be construed as an affirmative defense for the government rather than an essential element to a plaintiff's case under section 1498(a).[7] Had Congress wished to make the requirement that the claim not arise in a foreign country part of the plaintiff's burden, it could have chosen two alternatives to clearly indicate its intent. First, Congress could have phrased section 1498(c) as a positive requirement [e.g., "The provisions of this section shall apply only to claims arising in the United States."]. Second, Congress could have, in lieu of adding section 1498(c), placed the "[not] arising in a foreign country" requirement in the already existing section 1498(a) as an additional element necessary to establish a claim against the government. Either of these alternatives would have clearly indicated that the burden of proving at trial that the claim did not arise in a foreign country rested on the plaintiff. Thus, the Court agrees with Plaintiff that the government bears the burden of proof in demonstrating that the claim arises in a foreign country.

Because Defendant carries the burden of proving at trial that the claim arises in a foreign country, the lack of evidence in the record is construed in favor of Plaintiff. Section 1498(c) precludes recovery only in cases where the claim arises in a foreign country. Because there is no evidence in the record that establishes where Nicalon is manufactured, there is a genuine issue of material fact as to where the claim arose with respect to Nicalon. Thus, summary judgment with respect to the Nicalon fibers is inappropriate.

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[7] The fact that the Court later in this opinion holds that "arising in a foreign country" in 1498(c) means the same thing as "within the United States" in 35 U.S.C. § 271 does not undercut the Court's reasoning with regard to the burden of proof. The burden of proof depends on the structure of section 1498 and the way that the limitation of section 1498(c) is worded. Two phrases may be worded differently and yet have the same meaning.

C. Tyranno

The facts before the Court demonstrate that Tyranno chopped silicon carbide fibers ***834** are manufactured outside of the United States. SJ Hr'g 75. The Tyranno chopped silicon carbide fibers do not of themselves constitute the "sheet products" claimed in the patented processes. Under this Court's adopted claim construction, an additional step of processing the Tyranno fibers into mats is required for them to become "sheet products" within the meaning of the '162 Patent. Claim Constr., at 11. The evidence before the Court does not show where this additional processing step occurs. Therefore, it is not established that the whole patented process is practiced outside the United States. Because the Court must view the evidence in the light most favorable to the nonmovant (Plaintiff) in order for summary judgment to be appropriate regarding Tyranno fibers, the Court must find: (1) that section 1498(c) precludes governmental liability where all of the elements of the claims at issue are practiced in a foreign country; and (2) that section 1498(c) also precludes governmental liability where only some of the elements of the claims at issue are practiced in a foreign country.

This case presents an unusually difficult question of law and statutory interpretation. Strong arguments are available on either side of this issue. The starting point for statutory interpretation is the plain language of the statute. The language states that section 1498 shall not apply to "*claims* arising in a foreign country." [8] 28 U.S.C. § 1498(c) (emphasis added). The context of the entire statute indicates that "claim" means the entire legal claim against the United States. This is the sense of "claim" in the title, "United States Court of Federal *Claims*." This is also the sense of "claim" in section 1498(a), where the statute precludes a "claim" being brought against the United States for activities occurring before July 1, 1918. Finally, "claim" is also used

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[8] This provision of the law has not been altered since its passage in 1960.

in section 1498(b), which deals with copyright infringement, where the word does not have the ambiguity that it has in the context of patent law, that is, a "claim" of a patent versus a "claim" against the United States. The second paragraph of section 1498(b) gives the government the authority to settle the (copyright) "claim." [9] Thus, "claim" in the patent context means an infringement claim. For patent infringement to occur, a patent claim must read on an accused device or method in its entirety, either literally, or under the doctrine of equivalents. Thus, for infringement to occur in a foreign country, all elements or processes that comprise infringement must take place in a foreign country. As a result, with respect to a process claim, if any part of the process is not practiced in a foreign country, it would seem that the claim cannot arise in a foreign country.

Some ambiguity still remains, however, because of the word "arising." "Arising" implies a process, something which is not fully completed. This is the function, after all, of the active participle. Pursuing this logic, the Court could conclude that if the steps that constitute infringement *begin* in a foreign country and are *completed* in the United States, then the claim has "arisen" in a foreign country. Unfortunately, there are no cases defining "arising," and the term does not appear elsewhere in the statute.

Because the phrase, "arising in a foreign country" is ambiguous, the Court turns to legislative history, especially since the cases cited by Plaintiff [10] and ***835** Defendant [11] can be easily distinguished.

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[9] Section 1498(b) reads in relevant part: "That before such action against the United States has been instituted ... the [agency head] is authorized to enter into an agreement with the copyright owner ... to settle the claim administratively out of available appropriations."

[10] Plaintiff extensively cites *Hughes Aircraft Co. v. Messerschmitt-Boelkow-Blohm, GmbH,* 437 F.Supp. 75 (N.D.Fla.1977), arguing that the case demonstrates that where the infringing device is manufactured out-

1. Statutory Authority and Legislative History

The legislative history of section 1498 is best understood for the purposes of this case in comparison with 35 U.S.C. § 271 (defining infringement between private parties), since the general purpose of section 1498 was to provide a cause of

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side the United States and the government plays a very limited role in its development, the government will still be subject to suit under section 1498. Plaintiff notes that a section 1498(c) defense was never raised either at trial or on appeal to the Fifth Circuit. Contrary to Plaintiff's contention, the issue in the case was whether or not the patented product was used *by the United States Government.* The allegedly infringing article was a control system on a spacecraft used in the Helios space project developed and managed primarily in West Germany. The United States Government played a somewhat limited role in its development. The Fifth Circuit, in conferring exclusive jurisdiction to the Court of Claims under 28 U.S.C. § 1498(a), held that the project as a whole was a joint effort between the two governments for mutual benefit. *Hughes Aircraft Co. v. Messerschmitt-Boelkow-Blohm, GmbH,* 625 F.2d 580, 584 (5th Cir.1980). The Helios spacecraft was launched from the United States and was used in its entirety within the United States. This use within the United States clearly constituted a claim arising in the United States, making section 1498(c) inapplicable to the facts of the case. As a result, any question regarding the location of the spacecraft's manufacture became moot. In the case at bar, a different issue is being considered. There is uncertainty as to where the alleged infringement of Plaintiff's patent occurred. Part of the allegedly infringing process was practiced in a foreign country. Under section 1498(c), the question becomes whether the patented process was used *in* the United States rather than *by (or for)* the United States.

[11] Defendant relies chiefly on *Leesona Corp. v. United States,* 220 Ct.Cl. 234, 599 F.2d 958 (1979), where the court held that "a complete congruence between section 1498 and Title 35 would grant plaintiff recovery in excess of the just compensation required by the Fifth Amendment, and in excess of the reasonable and entire compensation contemplated by Congress with the passage of section 1498." *Id.* at 251-52. *Leesona,* however, was a case in which the court was overruling a trial judge's holding that treble damages (as provided for in Title 35) were available to plaintiffs in cases arising under section 1498. Thus, *Leesona* stands merely for the proposition that the damages provisions of Title 35 do not apply in patent cases against the government.

action against the government for patent and copyright infringement that reflected causes of action against private parties.[12]

The law that later became 28 U.S.C. § 1498 was originally adopted in 1910 for the purpose of providing patent owners with a remedy against the Federal Government for unauthorized use of their patented invention. Act of June 25, 1910, ch. 423, 36 Stat. 851. There was no provision regarding claims arising in a foreign country in the law as originally passed.

In 1952, Congress codified much of the common law that had developed in the patent field, passing the Patent Act of 1952, Pub.L. No. 82-593, 66 Stat. 792 (codified as amended at 35 U.S.C. §§ 1 et seq.). Infringement was defined at that time as making or using or selling an invention within the United States without a license. 35 U.S.C. § 271(a) (1952). Because the language of the statute limited infringement to *within the United States*, there was no need to add language regarding non-infringement for use outside of the United States.

Section 1498(c) was adopted by Congress in 1960.[13] Congress chose to adopt section 1498(c) after the State Department opined that 28 U.S.C. § 1498 could be interpreted by the courts as subjecting the United States to suit for infringement committed abroad. Section 271, on the other hand, specifically limited infringement liability to acts com-

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[12] It may be argued that, from the beginning, section 1498 did not match the scope of infringement liability as to private parties, as selling was not included in the statute that eventually became section 1498. Selling was an infringing act in 1910, when the law was originally passed. It may have been, however, that Congress could not envision the government selling a patented invention in 1910, and thus thought it unnecessary to include it in the statute.

[13] "The provisions of this section shall not apply to any claim arising in a foreign country." 28 U.S.C. § 1498(c).

mitted within the United States. Because section 271 specifically limited infringement to acts occurring "within the United States," and section 1498 did not provide a similar limitation, the State Department, and Congress as a result, feared that the courts might extend patent infringement liability against the government beyond the scope to which private parties were subject at that time. Thus, section 1498(c) was proposed and adopted as an amendment to the bill to "remove the possibility of its being interpreted as applying to acts of infringement in foreign countries." S.Rep. No. 86-1877, at 6 (1960), *reprinted in* 1960 U.S.C.C.A.N. 3450. Thus, it is clear that the language of section 1498(c) was intended by Congress to have the same meaning as the language "within ***836** the United States" as found in 35 U.S.C. § 271(a).

Therefore, in order to ascertain the meaning of "claim arising in a foreign country" the Court must determine the meaning of "within the United States" as written in section 271. There is little case law with respect to the exact meaning of the phrase "within the United States." However, it appears that when section 1498(c) was adopted in 1960, the language of 35 U.S.C. § 271 did not prevent a prospective infringer from moving merely one step of a patented process to a foreign country, thereby avoiding infringement.[14]

In 1960, at the time section 1498(c) was adopted, if a private party practiced each step of a patented process within the borders of the United States, infringement liability would result under 35 U.S.C. § 271(a). Similarly, if the Federal Government practiced each step of a patented process within the borders of the United States, liability would arise under 28 U.S.C. § 1498. Prior to the adoption of section 1498(c), ac-

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[14] 35 U.S.C. § 271(a) (1952) was the only clause defining direct infringement at that time. It read in relevant part: "(a) Except as otherwise provided in this title, whoever without authority makes, uses, or sells any patented invention, *within the United States* during the term of the patent therefor, infringes the patent." (Emphasis added.)

cording to the little case law found on point, if a private party practiced even one step of a patented process outside of the United States, it avoided infringement liability, as the patent statute was limited to acts committed *within* the United States. 35 U.S.C. § 271(a) (1952); *See Cold Metal Process Co. v. United Eng'g and Foundry Co.*, 132 F.Supp. 597 (W.D.Pa.1955), *aff'd*, 235 F.2d 224 (3d Cir.1956) (finding no infringement because one component of a patented product was made outside of the United States). Moreover, the Court, if asked to interpret the meaning of "within the United States" in the absence of the limited case law available, would find similarly. Infringement only occurs when all steps in a process patent are practiced. *Canton Bio-Medical, Inc. v. Integrated Liner Techs.*, 216 F.3d 1367, 1370 (Fed.Cir.2000). If infringement must occur "within the United States" as required by section 271, then it follows that all the steps that comprise the infringement must also occur within the United States. Thus, at the time that section 1498(c) was enacted, because a private citizen could avoid infringing a patent by practicing one limitation in a foreign country, section 1498(c) was also intended to exempt the Federal Government from liability where any part of the invention was practiced outside of the United States.

2. Does Section 1498 Cover All Direct Infringement?

Plaintiff urges the Court to interpret section 1498 to mean that the government may be sued for any act which would constitute direct infringement under 35 U.S.C. § 271. If the legislative history were to show a clear congressional intent that section 1498 was intended to apply to all forms of direct infringement, section 1498(c) would not preclude recovery from the government for the use of the methods covered by the '162 Patent.

Beginning with the Process Patent Amendment Act of 1988, Congress has amended Title 35, section 271 to expand the definition of what constitutes direct infringement between

private parties. This expansion has, for example, provided causes of action against those who import patented products, or products made by a patented process. *See* 35 U.S.C. § 271(a), (g). In view of the objectives and policies underlying section 1498, it would seem reasonable to conclude that Congress intended the scope of section 1498 to expand with the definition of direct infringement. In fact, the Federal Circuit appears to have supported this view in *Motorola v. United States,* 729 F.2d 765 (Fed.Cir.1984), where it stated that the government may be sued under section 1498 for "any direct infringement of a patent ...." *Motorola,* 729 F.2d at 768 n. 3. However, this statement was made prior to 1988, when Congress amended 35 U.S.C. § 271 to expand the definition of what constitutes infringement. So, while this statement clearly stands for the proposition that section 1498 applies to all direct infringement as it was defined in 1984 (which was identical to direct infringement as defined when section 1498(c) was adopted), it ***837** does not support the notion that section 1498 applies to any direct infringement under the current patent laws.

Direct infringement of a patent in 1960 was defined in 35 U.S.C. § 271(a) as making, using, or *selling* any patented invention, *within* the United States during the term of the patent. Section 1498(a), as adopted, applied to cases where the government manufactured [15] or used a patented invention. Section 1498(a) did not refer in any way to recovery for the sale of a patented invention by the Federal Government. At that time, though, the sale of a patented invention was a form of direct infringement. This exclusion of "selling" from section 1498 can be viewed in two ways. On one hand, absent clear evidence in the legislative history that Congress wished otherwise, it could be presumed that not including the act of selling in section 1498(a) was a purposeful exclusion. Because selling a patented invention was a form of direct in-

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[15] "Manufacture" has been equated to "make" in subsequent cases.

fringement at the time section 1498 was adopted, and because section 1498 did not hold the Federal Government liable for selling a patented product, it would be likely that section 1498 was not intended to cover all acts that would constitute direct infringement if committed by a private party. On the other hand, one might reasonably conclude that when Congress passed the predecessor to section 1498 in 1910, it did not contemplate any situation where the Federal Government would sell a patented product rather than manufacture it or use it and thus saw no need to provide consent to be sued in such a situation. However, this interpretation only would indicate that Congress intended that section 1498 would apply to any direct infringement as defined in 1910. It would not indicate that section 1498 should apply to direct infringement as it is defined today after the subsequent amendments to section 271.

Because nothing in the legislative history indicates that Congress intended for the meaning and effect of section 1498 to change in congruence with changes in 35 U.S.C. § 271, the Court is constrained to hold that section 1498 does not apply to all forms of direct infringement as currently defined in 35 U.S.C. § 271.

3. A Legislative Gap Exists

Congress has on occasion expressed a desire that patent infringement not be dependent on the identity of the infringer. In 1990, Congress passed the Patent and Plant Variety Protection Remedy Clarification Act [16] that amended the patent code to clearly state Congress's intention to abrogate state sovereign immunity as a defense to patent infringement law-

[16] At least part of this act (the abrogation of the States' 11th Amendment immunity) was declared unconstitutional by the Supreme Court in *College Sav. Bank v. Florida Prepaid Postsecondary Educ. Expense Board*, 527 U.S. 666, 119 S.Ct. 2219, 144 L.Ed.2d 605 (1999). Because the Court is only looking at the purpose behind passing the act, however, that finding does not affect our analysis in this case.

suits. This act was precipitated by the Supreme Court decision in *Atascadero State Hosp. v. Scanlon,* 473 U.S. 234, 105 S.Ct. 3142, 87 L.Ed.2d 171 (1985), which held that congressional intent to abrogate state sovereign immunity must be explicitly and unambiguously stated in the statute itself. *Atascadero,* 473 U.S. at 241, 105 S.Ct. 3142. *See also* S.Rep. No. 102-280, at 5 (1992), *reprinted in* 1992 U.S.C.C.A.N. 3086, 3091. In *Chew v. Cal.,* 893 F.2d 331 (Fed.Cir.1990), the Federal Circuit affirmed the dismissal of a patent infringement suit against the state of California. *Chew,* 893 F.2d at 336. Following *Atascadero,* the court stated that congressional intent to subject states to patent suit in Federal court must be explicitly stated in the patent infringement statute. *Id.* at 334. In response to this decision, Congress proposed an amendment to the United States Code that explicitly provided for suit against a state government for the infringement of a patent.

The Senate committee report first noted that the "Federal Government has already consented to suit in Federal court for patent infringement [under 28 U.S.C. § 1498]." The report further stated that "just as there is no distinction between a State versus a private school, there is no distinction between the Federal Government and a State government ...." S.Rep. No. 102-280, at 9 (1992), *reprinted in* 1992 U.S.C.C.A.N. 3086, ***838** 3095. Moreover, in introducing the bill that eventually was passed into law, Senator DeConcini declared that "Congress never intended for the rights of patent owners to be dependent upon the identity of the infringer." 136 Cong. Rec. 31410 (1990). This legislative history demonstrates that Congress intended that states be subject to patent liability just as private citizens. The legislative history of section 271 further demonstrates that Congress saw no distinction between the Federal Government and the State government in this respect. Therefore, the Court might presume that Congress intended the scope of patent infringement liability for the Federal Government to be similar to that of a

private citizen. Nevertheless, in construing the meaning of section 1498(c), congressional intent indicated by the legislative history of section 271 cannot supersede the plain language of section 1498. Congress may very well have intended section 1498 to apply to the additional infringing acts added since 1988 to 35 U.S.C. § 271, but it did not legislate accordingly.

As the patent statute has been expanded to provide additional protection to patent owners from infringing parties, Congress has failed to update section 1498 to make these additional protections applicable against the Federal Government. For example, when Congress passed the Process Patent Amendments Act of 1988, Pub.L. No. 100-418, 102 Stat. 1563 (1988), expanding infringement to include the importation of products made by a process patented in the United States (35 U.S.C. § 271(g)), it chose not to amend the language of section 1498 to specifically cover this form of infringement that clearly arises at least in part in a foreign country. Section 1498 was and is still limited to manufacture or use of a patented invention when the claim does not arise in a foreign country.

In *Rotec Indus. v. Mitsubishi Corp.*, 215 F.3d 1246 (Fed.Cir.2000), the Federal Circuit held that "[t]he court may not read an amendment to one section of a statute as an amendment to an entirely different section of the statute in the absence of any statutory justification." *Rotec Indus.*, 215 F.3d at 1258. The court further held that "[t]here is no general reason, however, for the court to play the part of surrogate legislature." *Id.* "This Court is empowered to rewrite neither statutes nor regulations, however unwise, nor does it have the information base nor expertise to do so effectively." *Newport News Shipbuilding and Dry Dock Co. v. Garrett*, 6 F.3d 1547, 1558 (Fed.Cir.1993). While the court at times may have a role to play in filling a small legislative gap, Federal Circuit precedent indicates that in cases such as the one before this Court, where Congress has amended one statute

and failed to amend another section of the statute or a related statute, the court must presume that Congress, absent a clear indication to the contrary, was cognizant of its choice and the potential gap created in the law.

4. Fifth Amendment and Sovereign Immunity

Under the principles of sovereign immunity, the government must give its consent in order to be sued. Without an express waiver of sovereign immunity, this Court lacks subject matter jurisdiction to hear the case. Sovereign immunity is "strictly construed, in terms of its scope, in favor of the sovereign." *Dep't of the Army v. Blue Fox, Inc.*, 525 U.S. 255, 261, 119 S.Ct. 687, 142 L.Ed.2d 718 (1999). "In construing a statute waiving the sovereign immunity of the United States, great care must be taken not to expand liability beyond that which was explicitly consented to by Congress." *Fidelity Constr. Co. v. United States,* 700 F.2d 1379, 1387 (Fed.Cir.1983). These clearly stated principles add further support to the interpretation of section 1498 announced herein.

However, the Federal Circuit has repeatedly stated that patent infringement by the government constitutes a government taking under an eminent domain theory. *See Hughes Aircraft Co. v. United States,* 86 F.3d 1566, 1572 (Fed.Cir.1996); *Leesona Corp.*, 220 Ct.Cl. at 252, 599 F.2d 958. *Contra De Graffenried v. United States,* 29 Fed.Cl. 384, 386 (1993); *Brunswick Corp. v. United States,* 36 Fed.Cl. 204, 207 (1996) (holding that the Federal Circuit statements that patent infringement by the government was a government taking were only dicta and that ***839** actions under section 1498 were not eminent domain proceedings). The Supreme Court has repeatedly held that the Constitution requires that the government provide a remedy for all Fifth Amendment takings. *First English Evangelical Lutheran Church of Glendale v. County of Los Angeles*, 482 U.S. 304, 316, 107 S.Ct. 2378, 96 L.Ed.2d 250 (1987); *Kirby Forest*

Indus. Inc. v. United States, 467 U.S. 1, 5, 104 S.Ct. 2187, 81 L.Ed.2d 1 (1984); *Jacobs v. United States,* 290 U.S. 13, 16, 54 S.Ct. 26, 78 L.Ed. 142 (1933). Following these holdings, the direct infringement of a patent by the government may constitute an unlawful taking because the patent confers upon its owner the right to exclude others from making, using, selling, or importing the patented invention. Where the government infringes that right to exclude, interpreting section 1498(c) to bar such a claim might violate the Fifth Amendment.

IV. Conclusion

Because the parties have not discussed the immediately preceding issue in their briefs, the Court believes that the proper resolution of this summary judgment motion requires that the parties be heard on it. The Court therefore orders supplemental briefing on the following issues:

1. Does the alleged patent infringement in this case constitute a Fifth Amendment taking?

2. If the alleged patent infringement does indeed constitute a Fifth Amendment taking, does the Court's interpretation of 28 U.S.C. § 1498(c) violate the Fifth Amendment?

The Court also invites the parties to submit additional evidence pertaining to the location of manufacture of Nicalon fibers. The Court further directs that a status report be filed within 10 days of this opinion providing three mutually agreeable dates to conduct a status conference.

APPENDIX C

58 Fed. Cl. 688

United States Court of Federal Claims.
ZOLTEK CORPORATION, Plaintiff,
v.
The UNITED STATES, Defendant.
No. 96-166 C.

Filed: Dec. 9, 2003.
Originally Filed Under Seal: Nov. 26, 2003.

OPINION

DAMICH, Chief Judge.

I. Introduction

Defendant filed a Motion for Partial Summary Judgment alleging that 28 U.S.C. § 1498(c) barred Plaintiff from receiving reasonable compensation under 28 U.S.C. § 1498(a) for infringement of Plaintiff's U.S. Patent No. Re. 34,162 (hereinafter, "Re. '162 Patent"). The Re. '162 patent teaches a process for making a silicon fiber sheet product used in the production of F-22 fighter planes. Because the fibers that form the sheet product are manufactured in a foreign country, and the manufacturing of the fibers is part of the patented process, this Court agreed with Defendant and held in its opinion of March 14, 2002, that Plaintiff's suit was barred by § 1498(c), because it was based on a "claim arising in a foreign country." *Zoltek v. United States,* 51 Fed.Cl. 829, 834 (2002).

Nevertheless, the Court stayed Defendant's motion, pending additional briefing by the parties on several issues that arose out of the Court's holding regarding the effect of § 1498(c). The thrust of these issues was whether Plaintiff had a cause of action outside of § 1498 for a taking of its pat-

ent rights under the Fifth Amendment to the U.S. Constitution, over which this Court has jurisdiction by virtue of the Tucker Act.[1] For the reasons stated herein, this Court holds that Plaintiff may assert in this Court a claim outside of § 1498 for a taking of its patent rights under the Fifth Amendment. Therefore, Defendant's Motion for Partial Summary Judgment is DENIED.

FN1.

II. Background

The background of this matter is set forth in the Court's March 14, 2002 opinion, but a brief recitation of the relevant facts follows. Zoltek Corporation ("Zoltek" or "Plaintiff") is the owner of the Re. '162 patent.[2] The focus of this litigation is on the United States' production of the F-22 fighter plane and its alleged use of the invention claimed in the Re. '162 patent, which includes a set of process claims describing a method for manufacturing a carbon fiber sheet product.[3]

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[1] The Act of March 3, 1887, 24 Stat. 505, added the following to the then-Court of Claims's jurisdiction: "All claims founded upon the Constitution of the United States ... in cases not sounding in tort ...." *See Schillinger v. United States,* 155 U.S. 163, 169, 30 Ct.Cl. 480, 15 S.Ct. 85, 39 L.Ed. 108 (1894).

[2] Patent Re. '162 is a reissued patent. The original patent was filed on March 1, 1988 as U.S. Patent No. 4,728, 395 (" '395"). Zoltek sought reissue of Patent '395 on February 20, 1990 and on January 19, 1993, the Patent & Trademark Office ("PTO") issued Re. '162. This Court rendered an opinion on Defendant's Motion for Partial Summary Judgment regarding Re. '162 and ruled in part in favor of Plaintiff, holding that the claims of the Re. '162 patent were valid and dated back to the original date of filing of the '395 patent. *See Zoltek v. United States,* No. 96-166, slip op. at 1 (Fed.Cl. Sept. 13, 1999).

[3] The Re. '162 patent has 40 claims, some written in method form and others in product-by-process form. Zoltek is enforcing only the process

Plaintiff seeks to recover for the use of its patented process by the government, which requires both the "carbonization" of the fiber to create partially carbonized fiber and the formation of a sheet product. *See, e.g.,* Re. '162 Pat., col. 8, ll. 42-66.

It is undisputed that Defendant contracted with Lockheed Martin Corporation (hereinafter*690 "Lockheed") to design and build the new F-22 fighter. It is also undisputed that Lockheed subcontracted with other companies to provide fiber sheet products for use in the construction of the F-22. Similarly, it is undisputed that two types of fiber sheet products are used on the F-22 fighter: the first is a prepreg that is made from Nicalon fibers; the second is a silicon carbide fiber mat made from Tyranno fibers. *Zoltek Corp. v. United States,* 51 Fed.Cl. 829, 831 (2002). Both fibers are manufactured in Japan and have been imported into the United States. The Nicalon fibers are manufactured in Japan by the Nippon Carbon Co. and are then distributed in the United States; the Tyranno fibers are also manufactured in Japan by Ube Industries, a Japanese Company. *Id.;* Mot. to Submit the Stipulation of Expected Test. of Composite Optics, Inc. The parties agree that Nippon Carbon Co. and Ube Industries have provided the fibers used in the construction of the F-22 fighter. Only the act of forming the sheet product from the imported fibers takes place in the United States; the "partial carbonization" steps of the claimed invention are not carried out in the United States. Defendant's Motion for Partial Summary

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claims of Re. '162 patent. Claims 1-22 and 33-38 are the method or process claims at issue in the government's motion for partial summary judgment. Claims 1, 11, 15 and 33 are independent claims. Together these claims provide a method of manufacturing controlled surface electrical resistivity carbon fiber sheet products by, *inter alia,* partially carbonizing previously oxidized and stabilized fiber at an elevated temperature in an oxygen free environment. Re. '162 Pat., col. 1, ll. 64-68; col. 2, ll. 1-4, 42-50. Re. '162 Pat., col. 2, ll. 1-4. The final product is an end sheet product having the form of "paper, woven fabric and the like." Re. '162 Pat., col. 2, ll. 57-60.

Judgment Pursuant to the RCFC [Rules of the Court of Federal Claims] 56 With Respect to Silicon Carbide Fiber Sheet Products Used by the F-22 Program (hereinafter, "Def.'s Mot. Par. Summ. J.") at 7.

Defendant argued in its motion for partial summary judgment that Plaintiff was not able to assert a claim for reasonable compensation under § 1498(a) because both the Nicalon and Tyranno fibers are manufactured in a foreign country and, thus, any claim based on the manufacture of the sheet products arises in a foreign country. Defendant contended that pursuant to 28 U.S.C. § 1498, the government's use of the accused process must arise in the United States and that "[s]ince the formation of the fiber from its precursor occurs outside the United States, the process is not 'used' in this country." Def.'s Mot. Par. Summ. J. at 7. According to § 1498(c), the reasonable compensation described in § 1498(a) is not paid when the claim is one "arising in a foreign country."

The Court's March 14, 2002 ruling on Defendant's motion for partial summary judgment agreed with Defendant in part. After a review of the statutory text and its legislative history, this Court found that 28 U.S.C. § 1498 does not apply to all forms of direct infringement as currently defined in 35 U.S.C. § 271. *Zoltek Corp.*, 51 Fed.Cl. at 837. The Court found that § 1498(c) provided the government with an affirmative defense to Plaintiff's infringement claim.[4]

Hence, the Court's interpretation of § 1498 leaves Zoltek in a rather curious position. Although Zoltek possesses an exclusive property right in its patented process, both parties concede that under the Court's interpretation Zoltek has no

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[4] Because § 1498(c) is worded negatively-indicating when § 1498(a) does not apply, rather than indicating the instances where § 1498(a) does apply-the Court explained in its March 14, 2002 opinion that Congress has signaled that § 1498(c) should be construed as an affirmative defense for the government, rather than an essential element to a plaintiff's case under § 1498(a). *Zoltek Corp.*, 51 Fed.Cl. at 834.

ability to enforce its right against the United States or its contractor, Lockheed Martin.[5] *Zoltek Corp.*, 51 Fed.Cl. at 837-38; Tr. of Oral Arg. on Takings Issue at 18-20. Under the Patent Act, however, it seems that Plaintiff might have a cause of action for use or importation of products made abroad, using a process covered by a U.S. patent.[6] Because Zoltek ***691** would have no remedy under § 1498, yet it may be deprived of its patent rights under the Patent Act, the Court questioned whether the government's action might constitute a taking under the Fifth Amendment. The Court said: "Where the government infringes [the] right to exclude, interpreting § 1498(c) to bar such a claim might violate the Fifth Amendment." *Zoltek Corp.*, 51 Fed.Cl. at 839.

The Court ordered supplemental briefings on whether the alleged patent infringement in this case constitutes a Fifth Amendment taking and, if the alleged patent infringement does indeed constitute a Fifth Amendment taking, whether the Court's interpretation of 28 U.S.C. § 1498(c) violates the Fifth Amendment. *Zoltek Corp.*, 51 Fed.Cl. at 839. In addition, Plaintiff was granted permission to brief an additional issue: whether the rationale underlying the "headquarters claim"

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[5] The precursor to § 1498, the 1910 Act, was amended in 1918 to give government contractors immunity from suit in private litigation brought by the patent owner. Congress thought it necessary to shield government contractors from defending patent infringement actions, so as to encourage these contractors to undertake work that would aid the war effort. *See Richmond Screw Anchor Co. v. United States*, 275 U.S. 331, 343-44, 48 S.Ct. 194, 72 L.Ed. 303 (1928); *Leesona Corp. v. United States*, 220 Ct.Cl. 234, 599 F.2d 958, 967 (1979).

[6] Two sections of the Patent Act are of particular relevance: § 154 and § 271(g). Section 154 grants the owner of a process patent "the right to exclude others from using, offering for sale, or selling throughout the United States, or importing into the United States, products made by that process." Section 271(g) states that "[w]hoever without authority imports into the United States or offers to sell, sells, or uses within the United States a product which is made by a process patented in the United States shall be liable as an infringer."

doctrine of the Federal Tort Claims Act is applicable to claims under § 1498. The parties were asked to consider these issues while remaining mindful of the government's sovereign immunity and remembering that statutory provisions waiving sovereign immunity are strictly construed.

Following oral argument, the Court asked the parties to file simultaneous supplemental briefs on the impact of 19 U.S.C. § 1337(*l*) on this case.[7] In particular, the parties were asked to address whether the determination that an article "would have been excluded from entry or would not have been entered" under § 1337(*l*) can include consideration of 35 U.S.C. § 271(g). Furthermore, if the determination is made that an article "would have been excluded from entry or would not have been entered" because of 35 U.S.C. § 271(g), can the Court award reasonable and entire compensation under 28 U.S.C. § 1498(a)? The parties' attention was directed to the language of § 1337(*l*), which states: "pursuant to the *procedures* of § 1498 of Title 28" (emphasis added). The Court was interested in determining whether Plaintiff had a cause of action outside of either § 1498 *or* the Fifth Amendment. If § 1337(*l*) provided a remedy, there would be no reason to resort to the Fifth Amendment as such.

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[7] 19 U.S.C. § 1337 allows a party, in a " '337" action, to prevent a product made overseas from being imported into the United States if it competes with a product or process patented in the United States. If the imported product is determined to infringe by the United States Court of International Trade, then the International Trade Commission ("ITC" or "Commission") may take action that will prevent the article from entering the United States. For example, the Commission may issue orders excluding the infringing article from entry into the United States, or order the infringing activity to cease and desist. 19 U.S.C. § 1337(d) and (f). However, 19 U.S.C. § 1337 (*l*) prevents the ITC from ordering such an exclusion when the product is to be used by or for the United States with its authorization and consent. Instead, § 1337(*l*) directs the party bringing the '337 action to sue the United States for "reasonable and entire compensation" according to the "procedures" set forth in 28 U.S.C. § 1498. 19 U.S.C. § 1337(*l*).

III. Arguments of Counsel

A. The Takings Issue

Plaintiff argues that the alleged infringement in the instant case constitutes a Fifth Amendment taking. First, Plaintiff reminds the Court that the Court of Appeals for the Federal Circuit has repeatedly said that patent infringement by the United States is premised on the theory of eminent domain. Plaintiff's Supplemental Brief ("Pl.'s Supp. Br.") at 15 (citing *Hughes Aircraft Co. v. United States*, 86 F.3d 1566, 1572 (Fed.Cir.1996); *Motorola, Inc. v. United States*, 729 F.2d 765, 768 (Fed.Cir.1984); *Dow Chemical Co. v. United States*, 32 Fed.Cl. 11 (1994)). Plaintiff characterizes the United States's alleged infringement of the Re. '162 patent as a taking, despite the limits of § 1498(a), because it is an infringement that "occurs in whole or in part by the U.S.'s designated foreign agents *for the benefit of* the United States." Pl.'s Supp. Br. at 15 (emphasis added). Plaintiff analogizes the circumstances in this case to a situation in which foreign agents effected a taking of property overseas for the benefit of the United States. For example, the United States must pay just compensation for takings by its forces abroad when they do not involve acts of war.

***692** Plaintiff contends that an interpretation upholding the constitutionality of § 1498(c) in this case "would clearly violate the plain language of the Fifth Amendment Just Compensation Clause, and would be inconsistent with case law interpreting that Clause ...." Pl.'s Supp. Br. at 19. Zoltek asks the Court to apply the rationale set forth in *Porter v. United States*, 204 Ct.Cl. 355, 496 F.2d 583 (1974).[8] *Langenegger v. United States*, 756 F.2d 1565 (Fed.Cir.1985). *Porter* ac-

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[8] In *Porter*, the United States Court of Claims actually held for the defendant on the takings issue because the Plaintiff could not show that the United States "carried out the alleged taking of property" because the officials responsible for the alleged appropriation had no authority to act on behalf of the United States. *Porter*, 496 F.2d at 591.

knowledged that the United States can be obligated to pay just compensation under a theory of eminent domain when there is a taking of United States property overseas by foreign nationals or foreign governments, provided that "the United States carried out the alleged taking of property." *Porter,* 496 F.2d at 591. Plaintiff alleges that "if the U.S. cannot use a foreign government to seize [United States property] for the benefit ... of the U.S. without paying just compensation, the U.S. also cannot use foreign agents to infringe a U.S. patent ...." Pl.'s Supp. Br. at 20. Zoltek argues that, based on the analysis set forth in *Porter,* the Court must consider "whether the United States's involvement was sufficiently direct and substantial" to hold it liable for a taking under the Fifth Amendment. *Id.* at 18. Plaintiff asserts that the Court's March 14, 2002, opinion ignores two criteria considered by the Federal Circuit to determine whether government action has effected a taking and that these criteria should be applied here: (1) the nature of the United States' activity, and (2) the level of benefit that the United States has derived. *See Langenegger,* 756 F.2d 1565.[9] Plaintiff characterizes the inquiry in this case as whether: "(1) the U.S. is directing the use of the accused process, and (2) the U.S. is using the accused process to obtain the F-22 plane to be used in the defense of the U.S." Pl.'s Supp. Br. at 20. Zoltek maintains that the aforementioned takings analysis "dovetails perfectly with the exception carved out under the Federal Tort Claims Act," (28 U.S.C. § 2680(k)), which is discussed *infra* Part IV.C. *Id.* Plaintiff does not address the nature of the taking (*i.e.,* physical occupation or regulatory taking) in the case *sub judice.*

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[9] *Langenegger* concerned the United States' involvement with the planning, implementation and financing of a Salvadoran agrarian reform program which caused the government of El Salvador to confiscate the property of some U.S. citizens, who then alleged that the United States' involvement rose to the level of a taking under the Fifth Amendment. *Langenegger,* 756 F.2d at 1566-68.

Defendant strongly urges the Court to find that a Fifth Amendment takings analysis is not appropriate in this case. The government argues that the application of § 1498 to the present case does not constitute a "taking" of a property right under the Fifth Amendment. First, Defendant expresses its view that the essence of § 1498 is not patent infringement, rather it is a unique statute that "grants the government a license to use any and all patents, subject to the payment of 'reasonable compensation.' " Def.'s Supp. Br. at 2. Second, Defendant argues that § 1498 is not an exercise of eminent domain, either. Rather, the government characterizes § 1498 as a provision granting a limited type of property right upon the patent owner, and argues that the Fifth Amendment is not violated by operation of § 1498 with respect to patents currently enforceable.

Defendant argues that if takings jurisprudence were relied upon nevertheless, then the standard set forth in *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1005, 104 S.Ct. 2862, 81 L.Ed.2d 815 (1984), would apply because Zoltek cannot assert a physical occupation of its property. Defendant contends that under the first prong of the *Monsanto* test-the nature of the government action-the Fifth Amendment only protects existing property interests; it does not create such interests. Def.'s Supp. Br. at 4. Rather, Congress creates the property right in a patent by the "Congressional enactment of patent statutes," and Congress decides the scope and terms of those rights, which will "promote the progress of science and useful ***693** arts." *Id.* Similarly, Defendant states that Congress can modify and revoke patent rights. Defendant concludes that Plaintiff cannot raise a takings claim based on the operation of § 1498(c) because the statute was "enacted more than 30 years before" the Re. '162 patent issued, and thus Zoltek's patent property rights are limited. Def.'s Supp. Br. at 5.

Furthermore, Defendant argues that Plaintiff could not show that § 1498 interferes with reasonable investment-

backed expectations, a factor relied upon by the Supreme Court in *Monsanto.* Since § 1498 was in existence at the time the patent was issued, Defendant concludes that Zoltek must have known the scope of its rights, and that the scope of recovery under § 1498 was not the same as that under Title 35. Moreover, the government argues that taking one right out of the bundle of rights does not automatically constitutes a taking. Def.'s Supp. Br. at 7.

Defendant concedes that the Supreme Court has held that patents are property capable of being appropriated (*James v. Campbell,* 104 U.S. 356, 26 L.Ed. 786 (1881)), but it maintains that Congress never established such a cause of action or a remedy, and it did not give any court such jurisdiction. Defendant relies heavily on *Crozier v. Fried, Krupp Aktiengesellschaft,* 224 U.S. 290, 32 S.Ct. 488, 56 L.Ed. 771 (1912), a Supreme Court case decided just after the precursor to § 1498 was enacted. Defendant contends that *Crozier* stands for the proposition that § 1498 defines the extent of eminent domain in the patent infringement context. Def.'s Supp. Brief at 13. Defendant also relies on *Richmond Screw Anchor Co. v. United States,* 275 U.S. 331, 48 S.Ct. 194, 72 L.Ed. 303 (1928), for the proposition that the Fifth Amendment does not apply to patents currently in force.

Defendant maintains that since *Richmond Screw Anchor,* there have been no cases dealing directly with the constitutionality of § 1498 per se. Rather, the cases usually address what is "reasonable compensation," and they should not be read to suggest that § 1498 has to be judged by Fifth Amendment standards. Moreover, Defendant believes that this Court should not consider the constitutional issue at all because Plaintiff has not proven that it is entitled to recovery under 35 U.S.C. § 271. Oral argument was held on this issue on September 19, 2002.[10]

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[10] All reference to "transcript" ("Tr.") herein refer to the September 19, 2002, Oral Argument Transcript, unless otherwise noted.

B. 19 U.S.C. § 1337(*l*)

Plaintiff argues that after reading together the provisions of 35 U.S.C. § 271(g), 19 U.S.C. § 1337(*l*), and 19 U.S.C. § 1337(a)(1), "it is clear that the United States is permitted to import articles using process steps which, if practiced in the United States, would result in the infringement of Zoltek's Re. '162 patent-in-suit if 'reasonable and entire compensation' is paid." Pl.'s Second Supp. Br. at 4. Plaintiff further argues that under these provisions, the United States cannot use an article that would otherwise be excluded without paying reasonable and entire compensation for its use and manufacture. Plaintiff argues that the government's interpretation of § 1498(c) is untenable because if Zoltek's claims arise in a foreign country, it would then have no remedy under § 1498(a) or 1337(*l*). *Id.*

Defendant argues that this Court does not have jurisdiction over claims arising under 1337(*l*) unless action has been taken by the ITC. Def.'s Second Supp. Br. at 1, 3. Defendant argues that for this Court to act pursuant to § 1337(*l*), it must have an Order from the ITC indicating that the article "would have been excluded [from entry] or would not have been entered" because the ITC has exclusive jurisdiction over the matter. Def.'s Second Supp. Br. at 3. Likewise, Defendant argues that the Court does not have jurisdiction to consider the second issue, whether the Court can award reasonable and entire compensation under § 1498(a), because there has been no action by the ITC. If such action were taken, Defendant speculates that it would be "permitted to present any defenses it may have." Def.'s Second Supp. Br. at 8. Nonetheless, Defendant argues that no justiciable***694** case or controversy is presented by the issue. Def.'s Second Supp. Br. at 6. The parties filed their respective briefs on November 20, 2002.

C. The Headquarters Claim Doctrine

Plaintiff has presented a lengthy argument urging this Court to apply the "headquarters claim" doctrine to this case, which essentially asks the Court to reconsider its March opinion on the appropriate interpretation of § 1498(c). Pl.'s Supp. Br. at 5-6. The headquarters claim doctrine is a body of case law applicable to the Federal Tort Claims Act ("FTCA"). 28 U.S.C. §§ 2671-2680. Pl.'s Supp. Br. at 3. Section 2680(k) of the FTCA provides that the Act shall not apply to "any claim arising in a foreign country," which is the same language found at § 1498(c). *Compare* 28 U.S.C. § 1498(c) *with* 28 U.S.C. § 2680(k). Thus, Plaintiff rationalizes that the headquarters claim doctrine is applicable to this case.

Defendant disagrees. Although the identical language in these two sections should be interpreted consistently, Defendant argues that the headquarters claim doctrine is only relevant to the FTCA. The parties were heard on this issue during the September 19, 2002 oral argument.

IV. Discussion

A. Zoltek's Remedy Under § 1337(*l*)

The parties were asked to address whether the determination that an article "would have been excluded from entry or would not have been entered" can include consideration of 35 U.S.C. § 271(g). Furthermore, the parties were asked if the determination is made that an article "would have been excluded from entry or would not have been entered" because of 35 U.S.C. § 271(g), can the Court award reasonable and entire compensation under 28 U.S.C. § 1498(a). The parties' attention was directed to the language of § 1337(*l*), which states: "pursuant to the *procedures* of § 1498 of Title 28" (emphasis added). The Court found supplemental briefing on this issue was necessary because if Zoltek had an adequate remedy for the government's alleged infringement under § 1337(*l*), there would be no need for the Court to address the takings issue.

which should be resorted to only if Zoltek has no other adequate remedy for the alleged infringement. Because the government stipulates that Zoltek has no remedy in this Court under § 1337(*l*) or § 1498(c), the Court finds it appropriate to address the takings issue.

Section 1337(*l*) provides in relevant part:

> Importation by or for United States-Any exclusion from entry or order under subsection (d), (e), (f), (g), or (i) of this section, in cases based on a proceeding involving a patent ... under subsection (a)(1) of this section, shall not apply to any articles imported by and for the use of the United States, or imported for, and to be used for, the United States with the authorization or consent of the Government. Whenever any article would have been excluded from entry or would not have been entered pursuant to the provisions of such subsections but for the operation of this subsection, an owner of the patent ... shall be entitled to reasonable and entire compensation in an action before the United States Court of Federal Claims pursuant to the procedures of section 1498 of Title 28.

19 U.S.C. § 1337(*l*). Defendant argues that this Court lacks jurisdiction to consider whether, in an action under § 1337(*l*) (a " '337 action"), the fiber products at issue in this case "would have been excluded from entry or would not have been entered" because that question is within the exclusive jurisdiction of the ITC, "subject to review of the President and the Federal Circuit." Def.'s Second Supp. Br. at 4. Moreover, Defendant argues that the Court lacks jurisdiction because Zoltek has not alleged an injury under 1337(*l*), the existence of an exclusion order, that goods have entered the United States despite an exclusion order, or that there has been an injury to its business from entry of such goods. Thus, according to the Defendant, there is no justiciable case or controversy. The government is correct. Zoltek does not

assert in its brief that an exclusion order has been entered or other action has been taken by the Commission with respect to the fiber products at issue. ***695** Thus, the Court accepts Defendant's stipulation that § 1337(*l*) is not helpful to Zoltek for purposes of this case.

Furthermore, Defendant points out that a claim under § 1337 is not parallel to an action under § 1498(a). Defendant notes that the patent owner bringing a '337 action must show, or the Commission must find, that "an industry in the United States, relating to the articles protected by the patent ... concerned, exists or is in the process of being established." Def.' s Second Supp. Br. at 7 (quoting 19 U.S.C. § 1337(a)(2)). Section 1337(a)(3) provides that "an industry in the United States shall be considered to exist if there is in the United States ... (A) significant investment in plant and equipment; (B) significant employment of labor or capital; or (C) substantial investment in its exploitation ...." 19 U.S.C. §1337(a)(3). Also, the Commission must consider the effect of the exclusion on consumers under § 1337(d), and ultimately the President can disapprove the ITC's determination under § 1337(j). Def.'s Second Supp. Br. at 8. As Defendant's argument suggests, these factors are unique to '337 actions, and are not similarly part of a prima facie case of patent infringement under Title 35. These showings, which are required to support a successful '337 action, are notoriously difficult and expensive to establish.[11] *See, e.g., Loral Fairchild Corp. v. Victor Co. of Japan.*, 931 F.Supp. 1014, 1040 (E.D.N.Y.1996) (Rader J., Circuit Judge sitting by designation) ("[E]ven if [plaintiff] had undertaken the expense and

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[11] The 1988 Process Patent Amendment Act of 1988, Pub.L. No. 100-418, § 9006(a), 102 Stat. 1107, 1567 (1988), was enacted in part because of the inadequacy of a '337 action. In particular, Congress recognized the limited remedies available to a patent owner in a '337 action for the use of a process patent outside the Unites States. *See* S.Rep. No. 100-83, 100th Cong., 1st Sess., at 30 (1987); H.R.Rep. No. 100-60, 100th Cong., 1st Sess., at 5 (1987).

difficulty of overcoming the manufacturing-capacity and injury-to-domestic-industry hurdles, these showings only were relevant to instituting a section 337 action. Winning the action would require additional expense and legal effort."). Furthermore, the Commission's determinations in '337 actions have no res judicata effect in an infringement action in district court. *Id; see also Texas Instruments, Inc. v. Cypress Semiconductor Corp.*, 90 F.3d 1558, 1568 (Fed.Cir.1996) (stating that the ITC's prior decision cannot have "claim preclusive effect") (citing *Bio-Technology General Corp. v. Genentech, Inc.*, 80 F.3d 1553 (Fed.Cir.1996); *Texas Instruments, Inc. v. Tessera, Inc.*, 192 F.R.D. 637 (C.D.Cal.2000) (recognizing "any issue of infringement determined by the ITC does not bind this Court or the parties")).

Defendant contends that "Congress also clearly intended that compensation due under § 1337(*l*) was to be determined under the same principles as in § 1498 ... [a]nd the government is permitted to present any defenses it may have." Def.'s Second Supp. Br. at 8. Nonetheless, as Defendant argues, the relationship between § 1498(a) and 1337(*l*) will not be decided in this opinion. Defendant stipulates that § 1337(*l*) is of no avail to Zoltek, and this provision "will not affect the outcome of this case." *Id.* Thus, the Court will decide whether Zoltek can proceed with its claim under a takings theory.

B. The Takings Issue

As a threshold matter, Defendant's argument that Plaintiff's constitutional claim is premature because Zoltek has not provided any facts that would allow it to recover under 35 U.S.C. § 271 is not persuasive. As a result of the Court's decision of March 14, 2002, both parties concede that Zoltek has no remedy under § 1498 against the government or its contractor. Absent the Court's finding that Zoltek may assert a takings claim on Fifth Amendment grounds, the Court would have to rule in Defendant's favor, since it has met its

burden and proven an affirmative defense under § 1498(c). Defendant has proffered evidence showing that both the allegedly infringing products, the Nicalon and Tyranno fibers, were manufactured abroad. Thus, the Court must decide whether to allow Plaintiff to proceed under the Tucker Act, 28 U.S.C. § 1491, which provides that Plaintiff may bring a claim for money damages against the United States if *696 the claim is "founded ... upon the Constitution."

1. Tucker Act Jurisdiction in Takings Claims

The Takings Clause of the Fifth Amendment provides that the government shall not take private property without compensating its owners. U.S. Const. amend. V ("[N]or shall private property be taken for public use, without just compensation."). The Supreme Court has explained in *United States v. Mitchell,* that "the Tucker Act 'does not create any substantive right enforceable against the United States for money damages.' A substantive right must be found in some other source of law, such as 'the Constitution ....' " *United States v. Mitchell,* 463 U.S. 206, 216, 103 S.Ct. 2961, 77 L.Ed.2d 580 (1983) (quoting *United States v. Testan,* 424 U.S. 392, 398, 96 S.Ct. 948, 47 L.Ed.2d 114 (1976); 28 U.S.C. § 1491). Nevertheless, the Supreme Court has counseled that "[n]ot every claim invoking the Constitution ... is cognizable under the Tucker Act. The claim must be one for money damages against the United States." *Id.* The Fifth Amendment is the only provision of the Constitution that has been held to fall under the Court's jurisdiction pursuant to the Tucker Act. *See, e.g., United States v. Causby,* 328 U.S. 256, 267, 66 S.Ct. 1062, 90 L.Ed. 1206 (1946) ("If there is a taking, the claim is 'founded upon the Constitution' and within the jurisdiction of the Court of Claims to hear and determine."); *Phelps v. United States,* 274 U.S. 341, 343, 47 S.Ct. 611, 71 L.Ed. 1083 (1927) ("Under the Fifth Amendment plaintiffs were entitled to just compensation, and ... the claim is one founded on the Constitution."). *Cf. Carruth v. United States,* 224 Ct.Cl. 422, 627 F.2d 1068 (1980); *Crocker v. United States,* 125 F.3d

1475, 1476 (Fed.Cir.1997) (explaining that this Court does not have jurisdiction over claims involving due process violations of the Fifth or Fourteenth Amendment). Similarly, the United States Court of Federal Claims does not have jurisdiction to consider the propriety of a taking. *See Crocker,* 125 F.3d at 1476.

The Takings Clause is based on the rationale that the government may take private property for public use but, when it does, the government must pay for it. *See First English Evangelical Lutheran Church of Glendale v. County of Los Angeles,* 482 U.S. 304, 316, 107 S.Ct. 2378, 96 L.Ed.2d 250 (1987) ("The [Supreme] Court has frequently repeated the view that, in the event of a taking, the compensation remedy is required by the Constitution."). The Supreme Court has explained that the Fifth Amendment "is designed not to limit the governmental interference with property rights *per se,* but rather to secure *compensation* in the event of otherwise proper interference amounting to a taking." *Id.* at 315, 107 S.Ct. 2378 (emphasis in original).

2. Patent Rights Are Property Rights Taken by Eminent Domain Pursuant to § 1498

The Federal Circuit, its predecessor court, the Court of Claims, and the U.S. Supreme Court have repeatedly recognized that patent rights are property rights. Furthermore, in the context of § 1498, the Federal Circuit and the Court of Claims have characterized the use of another's patent rights by the United States, without the permission of the patent owner, as an exercise of eminent domain. In *Leesona Corp. v. United States,* 220 Ct.Cl. 234, 599 F.2d 958, 967 (1979), the Court of Claims explained: "The theory for recovery against the government for patent infringement is not analogous to that in litigation between private parties. When the government has infringed, it is deemed to have 'taken' the patent license under an eminent domain theory, and compensation is the just compensation required by the fifth amend-

ment." 220 Ct.Cl. 234, 599 F.2d 958, 964 (1979); *see also, Decca Ltd. v. United States,* 225 Ct.Cl. 326, 640 F.2d 1156, 1167 (1980) ("Because section 1498 is an eminent domain statute, the government has consented thereunder only to be sued for its taking of a patent license."); *Trojan, Inc. v. Shat-R-Shield, Inc.,* 885 F.2d 854, 857 (Fed.Cir.1989) (Newman, J., concurring) ("28 U.S.C. 1498 is an eminent domain law.").

A property right in a patent is not a novel concept. By 1876 the law was well-settled that a patent owner enjoyed a property right ***697** in his or her patent. *Cammeyer v. Newton,* 94 U.S. 225, 226, 24 L.Ed. 72 (1876) ("[A]n invention so secured is property in the holder of the patent, and that as such the right of the holder is as much entitled to protection as any other property, during the term for which the franchise or the exclusive right or privilege is granted."). The Supreme Court has recently explained that the patent laws promulgated by Congress " 'promote the Progress of Science and useful Arts' by rewarding innovation with a temporary monopoly. [T]he monopoly is a property right ...." *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.,* 535 U.S. 722, 730-33, 122 S.Ct. 1831, 1837, 152 L.Ed.2d 944 (2002). Analogizing to any other kind of property right, a unanimous Court felt strongly that the boundaries of the property right in the patent should be clear so that the public knows what is in the public domain and available for use without a license, and what is protected by a patent. *Id.; see also Bonito Boats, Inc. v. Thunder Craft Boats, Inc.,* 489 U.S. 141, 149, 109 S.Ct. 971, 103 L.Ed.2d 118 (1989) ("the federal patent scheme creates a limited opportunity to obtain a property right in an idea").

The Federal Circuit has acknowledged § 1498's basis in eminent domain in several opinions [12] and its predecessor

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[12] *Hughes Aircraft Co. v. United States,* 86 F.3d 1566, 1571-72 (Fed.Cir.1996), *vacated and remanded on other grounds,* 520 U.S. 1183, 117 S.Ct. 1466, 137 L.Ed.2d 680 (1997) ("The government's unlicensed

court, the Court of Claims, did the same.[13] Many of these cases address the appropriate measure of damages to be awarded under § 1498, concluding in general that the "reasonable and entire compensation" language of the statute captures the just compensation requirement in the Fifth Amendment.[14]

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use of a patented invention is properly viewed as a taking of property under the Fifth Amendment through the government's exercise of its power of eminent domain ...."); *Chew v. California,* 893 F.2d 331, 336 (Fed.Cir.1990) (recognizing § 1498 "is based on principles related to the taking of property, namely a patent license"); *Trojan, Inc.,* 885 F.2d at 857 (Newman, J., concurring) (acknowledging § 1498 is an "eminent domain law"); *Motorola, Inc. v. United States,* 729 F.2d 765, 768 (Fed.Cir.1984) ("The theoretical basis for ... recovery is the doctrine of eminent domain."). *See also,* Lionel Lavenue, *Patent Infringement Against the United States and Government Contractors Under 28 U.S.C. § 1498 in the United States Court of Federal Claims,* 2 J. Intell. Prop.. L. 389, 469-70 (Spring, 1995).

[13] *See, e.g., Decca Ltd.,* 640 F.2d at 1166-67 (noting that "Section 1498 is an eminent domain statute"); *Leesona Corp.,* 599 F.2d at 964 (thoroughly discussing the legislative history and § 1498's basis in eminent domain); *Tektronix, Inc. v. United States,* 213 Ct.Cl. 257, 552 F.2d 343, 346 (1977) ("It is settled that recovery of reasonable compensation under § 1498 is premised on a theory of an eminent domain taking under the Fifth Amendment.") (citing *Calhoun v. United States,* 197 Ct.Cl. 41, 51, 453 F.2d 1385 (1972)) (stating the government "*ipso facto* takes by eminent domain a compulsory compensatory license in the patent"); *Pitcairn v. United States,* 212 Ct.Cl. 168, 547 F.2d 1106, 1114 (1976) ("The use or manufacture by or for the Government of a device or machine embodying any invention by a United States patent, is a taking of property by the Government under its power of eminent domain."); *Irving Air Chute Co. v. United States,* 117 Ct.Cl. 799, 93 F.Supp. 633, 635 (1950) (recognizing that § 1498 is "in effect, an eminent domain statute").

[14] *See e.g., Leesona Corp.,* 599 F.2d at 964 (treble damages not applicable in § 1498 actions); *Decca Ltd.,* 640 F.2d at 1167-68; *Tektronix, Inc.,* 552 F.2d at 346. For example, the Federal Circuit has said that a "complete congruence" between the reasonable compensation of § 1498 and the infringement remedies found at Title 35 "would grant plaintiff a recovery in excess of the just compensation required by the fifth amendment, and in excess of the reasonable and entire compensation contemplated by Con-

Many judges on the U.S. Court of Federal Claims have agreed with the analogy to eminent domain.[15] Two judges on this Court, *698 the late Judge Roger Andewelt and Judge Wilkes Robinson, however, opined that the government's use of a patent under § 1498 was not a taking by eminent domain. *De Graffenried v. United States,* 29 Fed.Cl. 384, 386-89 (1993); *Brunswick Corp. v. United States,* 36 Fed.Cl. 204, 207 (1996) (citing *De Graffenried*). The eminent domain issue in *De Graffenried* arose in the context of the plaintiff's entitlement to attorneys' fees as a prevailing party under the Equal Access to Justice Act (EAJA). The government con-

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gress with the passage of [section] 1498." *Leesona,* 599 F.2d at 969. Thus, in calculating damages under § 1498, the Court has tried to strike a balance that does not offend the Fifth Amendment by generally using reasonable royalty as the traditional benchmark measure of damages. *See id; Tektronix, Inc.,* 552 F.2d at 347; *Decca Ltd.,* 640 F.2d at 1167; *see generally* Donald S. Chisum, Chisum on Patents, § 20.03(6), at 20-449-459 (1998).

[15] *Dow Chem. Co. v. United States,* 36 Fed.Cl. 15, 18 (1996) ("Recovery of reasonable compensation is premised upon the government's power of eminent domain ...."), *aff'd in part, rev'd, vacated and remanded in part,* 226 F.3d 1334 (2000); *McCreary v. United States,* 35 Fed.Cl. 533, 536 n. 1, 547 (1996) (distinguishing between a patent infringement action between private parties and the "so-called 'patent infringement' by the United States, which is an uncompensated taking of private property under the Fifth Amendment"); *Penda Corp. v. United States,* 29 Fed.Cl. 533, 573 (1993) (reasonable and entire compensation is based upon a theory of eminent domain); *Messerschmidt v. United States,* 29 Fed.Cl. 1, 44 (1993) ("Therefore, for purposes of the instant claims of 'direct infringement,' or more properly for purposes of this compulsory, nonexclusive license analysis in eminent domain ...."); *Halas v. United States,* 28 Fed.Cl. 354, 360 n. 10 (1993) (recognizing that the theory behind United States's use of a patent is a taking); *Judin v. United States,* 27 Fed.Cl. 759, 773 (1993) ("The theory behind this court's jurisdiction, under 28 U.S.C. § 1498(a) (1988), is that the government's unlicensed use of a patented item is a taking."); *Hughes Aircraft Co. v. United States,* 29 Fed.Cl. 197, 208 (1993) (finding the theoretical basis underlying § 1498 is eminent domain and that the government takes vis-a-vis a compensable compulsory license).

tended that the plaintiff did not fit the EAJA definition of "prevailing party" for eminent domain proceedings. The government in *De Graffenried*-contrary to its position here-argued that § 1498 was an eminent domain proceeding, based on several Court of Claims cases, most notably, *Leesona.*

Leesona held that the award of treble damages, provided for in the Patent Act, was not available for § 1498 actions, because "the reasonable and entire compensation" phrase in § 1498 was "the just compensation required by the fifth amendment." *Leesona,* 599 F.2d at 964. The court arrived at this conclusion because: "When the government has infringed, it is deemed to have 'taken' the patent license under an eminent domain theory ...." *Id.* The court further stated that § 1498 "is essentially an Act to authorize the eminent domain taking of a patent license." *Id.,* 599 F.2d at 966.[16]

Judge Andewelt in *De Graffenried,* however, felt that the government had not "taken" anything of the plaintiff's by infringing its patent. He reasoned that the "metes and bounds" of a patent were delimited by the "statutory framework" at the time that the patent was granted. At the time that the plaintiff obtained his patent, the statutory framework included not only the Patent Act (specifically § 35 U.S.C. 154) but also § 1498, which, he held, subjects the patent to use by the government whether or not such use is licensed. Thus, as the government already has the right to use the patent, it does not "take" any-

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[16] This Court disagrees with Judge Andewelt's characterization of these statements as dicta. *De Graffenried,* 29 Fed.Cl. at 386. It would seem that deeming § 1498 an essentially eminent domain action is necessary to the conclusion that "reasonable and entire compensation" is the just compensation required by the Fifth Amendment, which, in turn, leads to the conclusion that Patent Act treble damages are not recoverable under § 1498.

thing of the plaintiff's when it uses it. *De Graffenried,* 29 Fed.Cl. at 387-88.[17]

Consequently, whether the plaintiff was a "prevailing party" in an eminent domain proceeding was irrelevant. Judge Andewelt did not cite any authority for this reasoning, and his decision that the plaintiff was a prevailing party for purposes of EAJA could have been based more narrowly on two other grounds that he discussed, namely, (1) the difference between § 1498 proceedings and typical eminent*699 domain proceedings and (2) the legislative history of EAJA. *Id.* at 388-89.[18]

Defendant in this case makes a similar argument-that the Re. '162 patent when granted was subject to a compulsory license in favor of the government by virtue of § 1498. Although this reasoning has a certain appeal-especially to get out of a "tight spot" involving a peripheral issue such as at-

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Because a patent owner's property rights under the applicable statutory scheme do not include the right to exclude the government from using his or her patented invention, when the government uses a patented invention, it does not "take" any property interest that belongs to the patent owner. Stated in another way, the government does not have to resort to exercising its sovereign power of eminent domain to utilize a patent owner's patented invention because the statutory framework that defines a patent owner's property rights gives the government the authority to use all patented inventions. Thus, the government cannot "take" what it already possesses.

De Graffenried, 29 Fed.Cl. at 387-88. Judge Andewelt is correct that no patent owner has the right to "exclude" the government from using his or her patent, but neither does a fee simple owner have the right to "exclude" the government. The rights that comprise a fee simple, like any other property rights, can be seized for the public, but eminent domain does not enter thereby into the definition of a fee simple.

18 *De Graffenried* has also been criticized by commentators as well. *See* Lavenue, supra n. 12 at 471-72 ("Although the Court of Federal Claims makes persuasive arguments in *De Graffenried,* this author considers the ultimate finding in error.").

torneys' fees-it does not withstand close scrutiny. Moreover, it does not account for the numerous statements regarding eminent domain and § 1498 by the Court of Claims and the Federal Circuit.

The task of specifying the bundle of rights that a patent owner possesses naturally begins with the Patent Act. The plain language of § 154, for example, states that every patent must contain:

> [A] grant ... of the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States, and, if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States, or importing into the United States, products made by that process, referring to the specification for the particulars thereof.

35 U.S.C. § 154(a)(1).

The ambit of these rights is further specified by § 271, which defines what acts constitute patent infringements.[19] The quoted language is in contrast to § 1498, which by its terms provides a "remedy" for the use of the patent by the U.S. without the owner's permission. The word "remedy" suggests redressing a wrong. For example, Black's Law Dictionary defines "remedy" as "[t]he means of enforcing a right or preventing or redressing a wrong; legal or equitable relief." Black's Law Dictionary 1296 (17th ed.1999). Furthermore, the phrase, "without license of the owner thereof or lawful right to use or manufacture the same," suggests an act *against* the rights of the owner. This is not the language of

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[19] Note that the prohibitions regarding use, sale, and importation of a product made overseas by a process patented in the U.S. is mentioned both in § 154 and § 271.

the grant of a right to the government, even if the result may be analogized to a compulsory license. Thus, Judge Andewelt's statement in *De Graffenried* that § 1498 "grants the government the absolute right, whether or not licensed, to use any patented invention," *De Graffenried,* 29 Fed.Cl. at 387, is an interpretation that departs from the plain language of the statute. By its terms, § 1498 does not *grant* the government anything.

That a wrongful act was a component of the 1910 predecessor to § 1498 was the view of the U.S. Supreme Court in *Crozier v. Fried, Krupp Aktiengesellschaft,* 224 U.S. 290, 32 S.Ct. 488, 56 L.Ed. 771 (1912), which interpreted the statute in 1912, two years after its passage.[20] The Court saw the 1910 statute as converting the wrongful act (patent infringement) of a U.S. government official into a rightful appropriation by the government pursuant to the power of eminent domain because of the compensation that was provided.[21] After this observation, the Court went on to characterize the statute in general: "[T]he statute, *looking at the substance of* ****700***

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[20] The 1910 Act, for purposes of this discussion, was essentially the same as § 1498:

> [W]henever an invention described in and covered by a patent of the United States shall hereafter be used by the United States without license of the owner thereof or lawful right to use the same, such owner may recover reasonable compensation for such use by suit in the court of claims. Pub.L. No. 61-305, 36 Stat. 851.

[21] The Court held that the statute

> confers upon the patentee [the power] to seek redress in the court of claims for any injury which he asserts may have been inflicted upon him by the unwarranted use of his patented invention .... The adoption by the United States of the wrongful act of an officer is, of course, an adoption of the act when and as committed, and causes such act of the officer to be, in virtue of the statute, a rightful appropriation by the government, for which compensation is provided. *Crozier,* 224 U.S. at 305, 32 S.Ct. 488.

things, provides for the appropriation of a license to use the invention." *Crozier,* 224 U.S. at 305, 32 S.Ct. 488 (emphasis added). Note that the Court characterized the government's action as an *appropriation* of something that only the patent owner had the right to give, namely, a license. The Court did not view the predecessor of § 1498 as defining the "metes and bounds" of the patent right.

Aside from the language of § 1498, there are logical and policy problems with the *De Graffenried* analysis. If, "when the government uses a patented invention, it does not 'take' any property interest that belongs to the patent owner" because "the government cannot 'take' what it already possesses," *De Graffenried,* 29 Fed.Cl. at 387-388, then logically the government need not compensate the patent owner. If § 1498 "defines a patent owner's property rights," *id.* at 387, then the patent owner simply does not have the right to prevent the government from using the patent, and the government does not have to pay the patent owner for that right. Eminent domain (and the concomitant obligation to pay when it is exercised) necessarily implies that the government has taken something that belongs to someone other than the government. This Court feels that the more accurate view is that the patent owner has the rights specified in the grant in title 35 subject to the exercise of eminent domain. If eminent domain is exercised, it appears that, according to § 1498, what the government has acquired is a license to use and manufacture. That the government has to pay for this license is encompassed in the constitutional concept of eminent domain.

The policy problem caused by the *De Graffenried* analysis is that, taken to its logical extreme, the government can avoid paying for any use of a patent by always defining the property right in a patent to exclude use by the government. Indeed, this stratagem could be applied against any property right the federal government has the power to create. This concept is not as far-fetched as it may sound. As the U.S. Supreme

Court in *James* pointed out: "the sovereigns of England ... can reserve to itself [*sic*], either expressly or by implication, a superior dominion and use in that which it grants by letters-patent...." 104 U.S. at 358. Flatly, the Court states: "The United States has no such prerogative ...;" rather, "[t]he government of the United States, as well as the citizen, is subject to the Constitution; and when it grants a patent the grantee is entitled to it as a matter of right, and does not receive it, as was originally supposed to be the case in England, as a matter of grace and favor." *Id.*

3. Patent Rights Taken by Eminent Domain outside of § 1498

Having established that patent rights are property that may be taken by eminent domain pursuant to § 1498, the Court now turns to the question of whether the government may be said to "take" patent rights that are not mentioned in § 1498. If the answer is in the affirmative, another question arises: What was the purpose of enacting § 1498? In other words, if the Fifth Amendment requires compensation every time that the federal government exercises a patent right without the permission of the patent owner and if the predecessor court of the U.S. Court of Federal Claims (the Court of Claims) had jurisdiction over Fifth Amendment takings claims from 1887 through the Tucker Act, it would seem that § 1498 was unnecessary. After examining the history of the evolution of § 1498, the Court concludes that indeed § 1498 is now unnecessary to secure for a patent owner the right to recover for unauthorized use and manufacture by the U.S., as patent infringement by the U.S. government is now clearly recognized as a taking and as the Tucker Act provides the U.S. Court of Federal Claims with jurisdiction to hear takings claims.

But this was not so in 1910 when the predecessor of § 1498 was enacted.[22] The ***701** predecessor of § 1498 was

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[22] Section 1498 has not changed significantly since 1910 for purposes relevant to this discussion. In 1918, the 1910 statute was amended to

enacted in 1910 to give the Court of Claims jurisdiction to allow a patent owner to recover for unauthorized use of his or her patent by the U.S. after the U.S. Supreme Court had held in *Schillinger v. United States,* 155 U.S. 163, 169, 30 Ct.Cl. 480, 15 S.Ct. 85, 39 L.Ed. 108 (1894), that the Court of Claims did not have jurisdiction over patent infringements because such actions sounded in tort and were thus not within the Tucker Act. The 1910 Act, however, did not grant tort jurisdiction to the Court of Claims in the case of patents; instead, the act was deemed to recognize that the Court of Claims had jurisdiction over unauthorized uses of patented inventions by the U.S. because such uses were takings by eminent domain. *Crozier,* 224 U.S. at 304-306, 32 S.Ct. 488; *Leesona,* 599 F.2d at 964.

The legislative history of the 1910 Act makes clear that its purpose was to confer on the Court of Claims jurisdiction to hear patent infringement suits against the federal government, because the U.S. Supreme Court in *Schillinger* had held that patent infringements were torts. *See* H.R. Comm. Rep. No. 61-1288, at 1, 3 (1910). Then as now, the Tucker Act expressly withheld from the Court of Claims jurisdiction for cases sounding in tort. *Schillinger,* 155 U.S. at 169, 15 S.Ct. 85. Congress passed the Act of June 25, 1910, ch. 423, 36 Stat. 851 ("the 1910 Act"), which allowed patent owners to sue the federal government for compensation when the United States "ma[d]e or acquire[d]" without a license any invention that was patented. H.R. Comm. Rep. No. 61-1288, at 4 (1910). The 1910 Act enabled the patent owner to bring suit for direct infringement. Before the 1910 Act, according to *Schillinger,* the patentee had no way to sue the government for redress unless proof established an implied contract be-

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provide that a patent owner could not sue a government contractor; the patent owner's exclusive remedy was against the U.S. "[M]anufacture" and use "by or for" the U.S. were also added in 1918. The statute, originally in Title 35, was moved to Title 28 during the 1948 revision of Title 28.

tween the government or the government official and the patent owner. *See also Crozier,* 224 U.S. at 304, 32 S.Ct. 488. In *Schillinger,* a case brought in 1894, the patentee sued the United States in the Court of Claims arguing that the government wrongfully used his patented invention and that jurisdiction was proper pursuant to the Tucker Act because it was a taking of property, and he thus had a claim "founded upon the Constitution." In *Schillinger,* a government contractor, who was the architect for the Capitol, allegedly used the Schillinger patent, which described an improvement in concrete pavement, to construct the pavement of the Capitol grounds. The Supreme Court rejected the patentee's argument and held that the patentee's claim was an action in tort and, thus, it fell outside the Tucker Act and was barred despite the fact that a taking of property was "founded upon the Constitution."

In very strong terms, Justice Harlan dissented, arguing that the use of the invention was a taking, either based on implied contract or based upon the constitution, both of which were the kinds of cases that the Court of Claims was empowered to hear under the Tucker Act. *Id.* at 173-180, 15 S.Ct. 85. As the majority in *Schillinger* had focused on implied contract, it is understandable-although, today, remarkable-that Justice Harlan would have found a *contract* "based upon the constitutional requirement that private property shall not be taken for public use without just compensation." *Schillinger,* 155 U.S. at 179, 15 S.Ct. 85 (Harlan, J., dissenting). More harmonious to modern legal ears is his statement of the second argument, which, because of its importance to this opinion, deserves to be quoted in full:

> If the Schillinger patent be valid, and if the invention described in it has been used or appropriated by the government through its agent charged with the improvement of the capitol grounds, then the patentee, or those entitled to enjoy the exclusive rights granted by it, are entitled to be compensated by the government. And the claim to have just compensation for such an appropria-

> tion of private property to the public use is "founded upon the constitution of the United States." It is none the less a claim of that character even if the appropriation had its origin in tort. The constitutional obligation cannot be evaded by showing that the original appropriation was without the express direction of the government, nor by simply interposing a denial of the title of the claimant to the property or property rights alleged to have been appropriated. The questions of title and appropriation are for judicial determination.*702 Those being decided in favor of the claimant, the constitution requires a judgment in his favor. If the claim here made to be compensated for the use of a patented invention is not founded upon the constitution of the United States, it would be difficult to imagine one that would be of that character.

Schillinger, 155 U.S. at 179, 15 S.Ct. 85.

After the 1910 Act was passed-conferring jurisdiction on the Court of Claims for patent infringement suits against the U.S.-the U.S. Supreme Court in *Crozier* construed the 1910 Act as following the Harlan theory.[23] The Court held that an action for an injunction against an officer of the Army of the United States, who was allegedly making use of a patented invention, belongs in the Court of Claims as an action for money damages against the United States pursuant to the 1910 Act. The patentee sought an injunction, but the Supreme Court reversed the Court of Appeals that would have allowed the injunction and directed the court to affirm the lower court's dismissal. *Id.* at 308, 32 S.Ct. 488. The Court said that the patentee's case should be dismissed without prejudice so the patentee could proceed in the Court of Claims. *Id.* In

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[23] "Whatever ambiguity there may have been in the 1910 Act itself, the Supreme Court in *Crozier v. Krupp* clearly construed it as following the Harlan theory." *Leesona,* 599 F.2d at 966.

Crozier, the Supreme Court specifically recognized that the 1910 Act was enacted in response to judicial decisions that recognized a property right in a patent but had held that the patent owner had no remedy unless the court found an implied contract between the government and the patent owner. *Id.* at 304, 32 S.Ct. 488. The Court found evidence of legislative intent in the law's title "[t]o provide additional protection for owners of patents." *Id.* Furthermore, the Court acknowledged that the theoretical basis for recovery under the 1910 Act was eminent domain:

> [W]e think there is no room for doubt that [the 1910 Act] makes full and adequate provision for the exercise of the power of eminent domain for which, considered in its final analysis, it was the purpose of the statute to provide.

Id. at 307, 32 S.Ct. 488.

Thus, *Crozier* effectively overruled *Schillinger* sub silentio and reinstated the theory of *James v. Campbell* "[t]hat the government of the United States when it grants letters-patent for a new invention or discovery in the arts, confers upon the patentee an exclusive property in the patented invention which cannot be appropriated or used by the government itself, without just compensation, any more than it can appropriate or use without compensation land which has been patented to a private purchaser, we have no doubt." [24] *James,* 104 U.S. at 357-58.

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[24] The Defendant reads *Crozier* in light of *De Graffenried,* arguing that the 1910 Act gave a remedy to enforce the rights of patents in force at the time of its enactment, but that for patents issued after the enactment of the Act, the Act serves as a limitation of the scope of the patent right. That is to say, as in *De Graffenried,* the 1910 Act actually *defines* the patent vis-a-vis the federal government. Thus, Defendant argues that reliance on *Crozier* for the proposition that § 1498 implicates the government's use of eminent domain is only partly correct. For patents in force at the date of enactment, unauthorized use by the government is a taking by eminent

4. Reconciling § 1498 and the Patent Act

As the evolution of the law regarding patent infringement suits against the government shows, Congress and the Supreme Court now see acts of the U.S. government that between private parties would be patent infringement as eminent domain takings; thus, § 1498 is-today-unnecessary, because all such acts would be encompassed in the Tucker Act jurisdiction of the now U.S. ***703** Court of Federal Claims. But, although § 1498 is unnecessary, it is still lawfully in effect, and § 1498 and the Tucker Act, as both are jurisdictional statutes for the U.S. Court of Federal Claims, must be construed together.

In the case at bar, this task is not too difficult as the statutes are not in conflict, except by negative implication: "when two statutes are capable of co-existence, it is the duty of the courts, absent a clearly expressed congressional intention to the contrary, to regard each as effective." *Morton v. Mancari,* 417 U.S. 535, 551, 94 S.Ct. 2474, 41 L.Ed.2d 290 (1974). As this Court has previously held, under § 1498 the Plaintiff does not have a cause of action against the U.S. for unauthorized use of a patented process when the claim arises in a foreign country. Under the Patent Act, the result would be the same between private parties regarding a claim of patent infringement arising overseas. *Ajinomoto Co. v. Archer-Daniels-Midland Co.,* 228 F.3d 1338, 1348 (Fed.Cir.2000) ("Section 271(g) by its terms applies to unauthorized actions

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domain; for patents issued thereafter, the government is merely exercising its reserved rights. Def.'s Supp. Br. at 13. This convoluted argument seems to be a desperate attempt to avoid the clear language of *Crozier.* In a very detailed analysis of the 1910 Act, and the amendments thereto, the Court of Claims recognized *Crozier's* view that the 1910 Act was essentially an exercise of the government's power of eminent domain. *Leesona Corp.,* 599 F.2d at 966 (noting the *Crozier* Court's adoption of Justice Harlan's takings theory in *Schillinger*). Defendant points to no specific language to support its reading of *Crozier,* and this Court is unable to find in *Crozier* any support for the distinction that Defendant attempts to make.

within the United States .... When the process used abroad is the same as the process covered by a United States patent, liability for infringement arises only upon importation ... as set forth in § 271(g)."). Thus, regarding rights created by the Patent Act other than use or manufacture, the Tucker Act can provide jurisdiction to this Court without conflicting with § 1498. For example, although the Court does not have jurisdiction over the Plaintiff's cause of action against the U.S. for infringement of its patented process, this Court would have jurisdiction over infringement of the Plaintiff's exclusive right over use in the U.S. or importation of products made abroad by the patented process, since these rights are not found in § 1498 but are found as rights in § 154 of the Patent Act, enforced through § 271(g) of the Act.

But does § 1498 limit the Court's jurisdiction under the Tucker Act by negative implication to just the patent infringements delimited in § 1498? Normally, the argument for limitation by negative implication would be articulated in this way: Does the fact that the 1910 Act only gave limited jurisdiction over patent infringements to the then Court of Claims mean that it withdrew the broader jurisdiction that it had under the Tucker Act? Although the scope of § 1498 is more narrow than the Tucker Act and although § 1498 was enacted after the Tucker Act, this Court is not convinced that, in enacting the predecessor of § 1498, Congress intended to so limit the Tucker Act. First, before the passage of the 1910 Act, the state of the law was that the Tucker Act did not grant the Court of Claims *any* jurisdiction over patent infringements. Therefore, the usual articulation of the argument from negative implication does not apply. Second, The very purpose of the 1910 Act was to clarify that the then Court of Claims had jurisdiction over patent infringements by the U.S. as takings through eminent domain, as attested by numerous opinions from the U.S. Supreme Court and the Federal Cir-

cuit.[25] It would be odd indeed for this Court in 2003 to turn the 1910 Act on its head by holding that the Act which was intended to expand the then Court of Claims' jurisdiction had the effect of limiting it instead. Third, the negative implication argument not only ignores the context of the enactment of the 1910 Act (overruling *Schillinger*), but also it flies in the face of *Ruckelshaus v. Monsanto,* 467 U.S. 986 at 1017, 104 S.Ct. 2862, 81 L.Ed.2d 815, in which the Supreme Court stated that the Tucker Act may not be limited by negative implication: "A withdrawal of jurisdiction would amount to a partial repeal of the Tucker Act. This Court has recognized, however, that repeals by implication are disfavored." *Monsanto,* 467 U.S. at 1017, 104 S.Ct. 2862.

***704** Reconciling § 1498 with the Patent Act is a conservative solution to the problem presented by this case. The Supreme Court, for example, went much farther in *Richmond Screw Anchor Co. v. United States,* 275 U.S. 331, 48 S.Ct. 194, 72 L.Ed. 303 (1928), where it basically voided a pre-existing statute that worked an injustice in light of the 1918 amendment to the 1910 Act. In 1918, an amendment to the 1910 Act was passed requiring that any patent infringement action brought against a government contractor who is under contract and doing work for the government be brought against the United States in the Court of Claims. The case involved interplay between the new 1918 amendment to the 1910 Act and § 3477 of the Revised Statutes, a statute gov-

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[25] It should be noted that when the 1910 Act was passed, the Patent Act guaranteed patent owners "the exclusive right to make, use, and vend the invention." In an era of extremely small and limited government by today's standards, it is quite possible that the drafters of the 1910 Act did not conceive that patent owners would have to be concerned that the U.S. would ever "make" or "vend" their patented items. Furthermore, at that time, prior to the 1918 Act, government contractors were still liable for suit for patent infringement done on behalf of the U.S. Therefore, it seems likely that the terms "make" and "vend" were excluded from the 1910 Act as irrelevant.

erning the transfer or assignment of claims against the United States. Taken together, these two acts would have prevented Plaintiff from bringing its claim against either infringer-the contractor or the United States itself. "If now § 3477 applies, and the assignments are rendered void, the effect of the Act of 1918 is to take away from the assignee and present owner, not only the cause of action against the government, but also to deprive it of the cause of action against the infringing contractor for injury by his infringement." *Richmond Screw Anchor,* 275 U.S. at 345, 48 S.Ct. 194. To avoid this unjust outcome, the Court voided the application of § 3477 to claims created by the 1918 Act where that Act deprived the owner of a remedy for infringement. *Id.* at 346, 48 S.Ct. 194. Here, in contrast to *Richmond Screw Anchor,* it is not necessary to void application of either § 1498 or the Tucker Act to achieve a just outcome. When read together, they both confer jurisdiction on this court to hear Zoltek's claim, albeit for different rights.

Therefore, there is no conflict in this case between the Tucker Act and § 1498. As there is no conflict, this Court has jurisdiction under the Tucker Act to hear an argument from the Plaintiff that the U.S. has taken other patent rights that belong to it, for example, the right to exclude others from importing and using products made abroad from its patented process.

Note, however, that while this Court is able to look outside of § 1498 to examine if patent rights have been taken, this does not imply that this Court is free to ignore § 1498 for all other provisions, such as calculation of damages. The measure of damages that is due from the government for a taking has always been just compensation. Finding a taking of rights outside of § 1498 does not entitle the Plaintiff to remedies under other sections of the Patent Act, such as the ability to recover treble damages. *See, Leesona Corp.,* 220 Ct.Cl. 234, 599 F.2d 958 (1979).

5. Can the government's actions be considered a taking?

Early Supreme Court cases addressing the Takings Clause were decided when "it was generally thought that the Takings Clause reached only a 'direct appropriation' of property." See *Lucas v. South Carolina Coastal Council,* 505 U.S. 1003, 1014, 112 S.Ct. 2886, 120 L.Ed.2d 798 (1992) ("Prior to Justice Holmes's exposition in *Pennsylvania Coal Co. v. Mahon,* 260 U.S. 393, 43 S.Ct. 158, 67 L.Ed. 322 (1922), it was generally thought that the Takings Clause reached only a 'direct appropriation' of property, or the functional equivalent of a 'practical ouster of [the owners] possession.' "). Thus, the taking of intangible property by government action was quite novel when the concept was suggested by Justice Holmes.[26] The Supreme Court explained in *Lucas* that,

> Justice Holmes recognized in *Mahon,* however, that if the protection against physical appropriations of private property was to be meaningfully enforced, the government's power to redefine the range of interests included in the ownership of property was necessarily constrained by constitutional limits .... These considerations gave birth in that case to the oft-cited maxim that, "while property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking."

***705** *Lucas,* 505 U.S. at 1014, 112 S.Ct. 2886 (quoting *Mahon,* 260 U.S. at 415, 43 S.Ct. 158).

Today, there are at least two categories of takings where just compensation is due: (1) a physical occupation of the property at issue, the traditional idea of a taking; and (2) a

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[26] It should be noted that one of the few cases prior to *Pennsylvania Coal Co.* that addressed the takings issue in a context other than physical occupation of property was *Crozier,* which found that the taking of a patent right was an exercise in eminent domain.

regulatory taking. Regulatory takings are governed by the legal standards outlined in *Monsanto.*

In *Monsanto,* the Supreme Court held that the appropriation of an intellectual property interest by a government action requires just compensation for its use when a federal law deprives the intellectual property owner of virtually all investment-backed expectations in the intellectual property.[27] The Supreme Court's decision in *Monsanto* is significant for two reasons. First, the Court makes clear that an intellectual property interest is deserving of protection under the Fifth Amendment tantamount to real property. Second, the Supreme Court found a remedy appropriate under the Tucker Act even though the disclosure of another's trade secret is a tort.[28] *Cf. Schillinger,* 155 U.S. at 169, 15 S.Ct. 85 (holding that a patent infringement action is essentially a tort).

Although the Supreme Court held in *Monsanto* that an intellectual property right is entitled to Fifth Amendment protection, the government overlooks the importance of this holding to the case *sub judice.* In attempting to distinguish *Monsanto,* the government focuses on the termination of rights given to a party by statute, but seems to slight the crux of the case, namely that the law effected a taking when it changed Monsanto's investment-backed expectations with respect to its interest in the intellectual property. The gov-

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[27] At issue were the data-consideration and disclosure provisions of the Federal Insecticide Fungicide, and Rodenticide Act (FIFRA), which required an applicant for pesticide registration to disclose certain trade secrets about its product. For a period of time, the statute included "an extensive measure of confidentiality" that information disclosed and designated as trade secrets would remain secret.

[28] Section 757 of the First Restatement of Torts specifically addressed liability for the "disclosure or use of another's trade secret." Section 757 was omitted from the Restatement Second when cases relied less on tort principles and were moving toward a body of federal law that began to develop on trade regulation and business interference. *See* Introductory Note to Division 9.

ernment's explanation for why a taking actually occurred does not subtract from the Supreme Court's acknowledgment that an appropriation of an intellectual property right is subject to analysis under the Court's takings jurisprudence. Furthermore, the Court found that a Tucker Act remedy was available in that case because Congress had not unambiguously "withdrawn the Tucker Act grant of jurisdiction to the Court of Claims to hear the suit involving the statute [FIFRA] founded ... upon the Constitution." *Monsanto,* 467 U.S. at 1017, 104 S.Ct. 2862 (quoting *Regional Rail Reorganization Act Cases,* 419 U.S. 102, 126, 95 S.Ct. 335, 42 L.Ed.2d 320 (1974)). Likewise, in the current case, § 1498 coexists with the Tucker Act and other rights granted by the Patent Act. In passing § 1498, Congress did not withdraw other protections from this court's jurisdiction.

The government argues that the two enumerated types of takings are the only two "mutually exclusive" types of takings recognized by Fifth Amendment takings jurisprudence, Def.'s Supp. Br. at 3. This is incorrect. Courts have found compensable takings that do not fit neatly into one of these two categories. *See, e.g., Shelden v. United States,* 7 F.3d 1022 (Fed.Cir.1993) (a Federal statute rendered a lien unenforceable because it transferred all of mortgagee's interest to the United States, which then took the interest in the property for the public fisc. Even though the liens remained technically valid, the Court found that because the liens were no longer enforceable against the United States due to its sovereign immunity, their value had been destroyed. Thus, the United States was liable to pay just compensation.); *Lee v. United States,* 629 F.Supp. 721 (D.Alaska, 1985) (dismissing for lack of subject matter jurisdiction in federal district court when plaintiffs were seeking in excess of $10,000 in inverse condemnation; the claims alleged that plaintiffs could not enforce their property rights because of a government conveyance to a native village corporation that could not be sued for

title to the *706 property under the Alaska Native Claims Settlement Act), *aff'd,* 809 F.2d 1406 (9th Cir.1987).

The government further contends that because Zoltek cannot claim physical invasion of its property, a regulatory taking is asserted. Def.'s Supp. Brief at 3. Zoltek offers little to persuade the Court otherwise. Plaintiff says the government's alleged use of its process patent is not really a regulatory taking, but could not tell the court what type of taking it is. Tr. at 37. Herein lies the problem. For a taking to occur, the government must take existing property rights. These rights must be definable and ascertainable, and must be traceable to a particular source. For Zoltek to properly allege a taking, it must show a source of rights that exist outside of § 1498. The most likely source for existing rights that the government can be alleged to have taken in this action are other sections of the Patent Act, such as § 154 or § 271(g). Plaintiff, however, has not alleged in its complaint (original or amended) that a taking has occurred outside of § 1498 or, if such a taking has occurred, what sort of a taking it should be considered-i.e., whether such a taking is more analogous to an occupation of real property or more like the sort of regulatory taking identified in *Monsanto.* Alternatively, as *Monsanto* does not preclude the recognition of other forms of takings, Plaintiff could allege a taking of a different sort from either of these two categories. For example, it may be that-following the pattern of § 1498-once the government has been determined to have exercised a patent right, then a reasonable royalty is payable without engaging in a separate "taking" analysis.

C. The Federal Tort Claims Act

Plaintiff has presented a lengthy argument urging this Court to apply the "headquarters claim" doctrine to the issues presented in this case. The headquarters doctrine "holds that a tort claim arises in the United States if it is found that the United States is the proximate cause of the tort, regardless of

where the injury actually took place." Pl.'s Supp. Br. at 3. The headquarters claim doctrine is a body of case law interpreting provisions of the Federal Tort Claims Act ("FTCA"). Section 2680(k) provides that the FTCA shall not apply to "any claim arising in a foreign country," the same language used in § 1498(c). Plaintiff argues that "[i]t is a settled principle of statutory construction that, unless a contrary purpose is shown, it is presumed that statutory terms carry the same meaning when they appear in different sections of the same statute." Pl.'s Supp. Br. at 3.

Defendant does not dispute this principle of construction. Def.'s Supp. Br. at 30; Tr. at 8. However, Defendant argues that the Court should not apply the headquarters claim doctrine to the case at bar because it ignores precedent and expands the government's limited waiver of sovereign immunity. Def.'s Supp. Br. at 23-24.

Defendant argues persuasively that the headquarters doctrine has nothing to do with the interpretation of "arising in a foreign country." Rather, it "is a corollary to the statutory requirement [28 U.S.C. § 1346(b)] to apply the law of the place where the negligence or willful acts or omissions occurred." Def.'s Supp. Br. at 24. Defendant points out § 1346(b) is a choice-of-law provision and correctly states that 1498(c) does not contain similar language because, Defendant argues, patent law is federal and uniform and this choice-of-law inquiry is inapplicable to patent law cases. Defendant contends that the Court's adoption of Plaintiff's argument would cause it to "inferentially includ[e]" the provisions of § 1346(b) into § 1498, which it argues is an unintended consequence. Def.'s Supp. Br. at 30.

The Court will not reconsider its interpretation of "arising" as Plaintiff asks it to do, and furthermore, the Court finds that the headquarters claim doctrine is not applicable to this case. The Court agrees with Defendant. It should interpret § 1498(c) and 2680(k) consistently because the rationale was

the same in both statutes: "avoidance of unintended results and the desire to limit the application of the law to the territorial limits of the United States." Def.'s Supp. Br. at 30.

The United States Court of Federal Claims has recognized that "the Supreme *707 Court has set forth a 'presumption that Acts of Congress do not ordinarily apply outside our borders.' " *Hughes Aircraft Co. v. United States*, 29 Fed.Cl. 197, 230 (1993). In support, the Court cited a FTCA case dealing with the headquarters claim doctrine, *Smith v. United States*, 507 U.S. 197, 113 S.Ct. 1178, 122 L.Ed.2d 548 (1993). Judge Turner said that cases such as *Smith* "suggest that, absent some textual indication to the contrary, we should construe § 1498 not to apply to claims arising beyond United States territorial limits." *Hughes*, 29 Fed.Cl. at 230.[29]

The Court concurs with Judge Turner's analysis, which is consistent with this Court's interpretation of 1498(c). The Court's interpretation of § 1498 in *Hughes* reinforces the notion that § 1498(c) was intended by Congress to have the same meaning as the language "within the United States" as found in 35 U.S.C. § 271(a).

Hence, the headquarters claim rationale is inapplicable to the instant case. The Court can interpret "arising in a foreign country" consistently without incorporating a doctrine applicable specifically to the FTCA.

V. Conclusion

For the reasons stated above, Defendant's Motion for Partial Summary Judgment is DENIED. Plaintiff is granted leave to amend its complaint in light of this ruling. If Plaintiff chooses to do so, it has 14 days to amend its complaint to allege a taking of its patent rights by the government outside

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[29] The *Smith* Court first looked to the plain meaning of the word "country," and then other statutory provisions, including § 1346(b), to conclude that Antarctica was a "country" within the meaning of the FTCA. *Smith*, 507 U.S. 197, 113 S.Ct. 1178.

of § 1498. The amended complaint should specify the source of the patent rights allegedly taken. The parties are ORDERED to file, within 14 days after Plaintiff files its amended complaint, a joint status report as to future proceedings in this case and to include three mutually agreeable dates, and an agreeable time during each date for a status conference. At the status conference, the parties shall be prepared to discuss what rights have allegedly been taken and how the Court should determine whether a taking has occurred.

This matter is subject to a Protective Order. The opinion shall be filed under seal until the parties review the opinion to see if any information should be redacted prior to publication in accordance with the terms of the protective order. The parties shall file a joint report indicating any such information that should be redacted within 10 days of the filing of this opinion.

APPENDIX D

464 F.3d 1335

United States Court of Appeals, Federal Circuit.

ZOLTEK CORPORATION, Plaintiff-Cross Appellant,
v.
UNITED STATES, Defendant-Appellant.
Nos. 04-5100, 04-5102.

Sept. 21, 2006.

Appealed from United States Court of Federal Claims, Chief Judge Edward J. Damich.

On Petition for Rehearing En Banc.

Before MICHEL, Chief Judge, NEWMAN, MAYER, Circuit Judges, PLAGER, Senior Circuit Judge, LOURIE, RADER, SCHALL, BRYSON, GAJARSA, LINN, DYK, and PROST, Circuit Judges.

ORDER

A petition for rehearing en banc was filed by the Cross-Appellant, and a response thereto was invited by the court and filed by the Appellant. The matter was referred first as petition for panel rehearing to the panel that heard the appeal, and thereafter the petition for rehearing en banc and response were referred to the circuit judges who were authorized to request a poll whether to rehear the appeal en banc.[1] A poll was requested, taken, and failed.

Upon consideration thereof,

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[1] Circuit Judge Moore assumed office on September 8, 2006, after the voting deadline had expired in this matter.

IT IS ORDERED THAT:

(1) The petition for rehearing is denied.

(2) The petition for rehearing en banc is denied.

(3) The mandate of the court will issue on September 28, 2006.

***1336** NEWMAN, Circuit Judge, dissents in a separate opinion.

DYK, Circuit Judge, with whom GAJARSA, Circuit Judge, joins, concurs in the denial of the petition for rehearing en banc in a separate opinion.

NEWMAN, Circuit Judge, dissenting from denial of the petition for rehearing en banc.

The court today rules that the owner of a patent that the government uses for governmental purposes cannot bring an action under the Fifth Amendment for compensation for the use of this property, and cannot prevent such unauthorized use. The panel majority holds that there is no jurisdiction in the Court of Federal Claims-or any other court-of a Takings claim for compensation for unauthorized use by the government of a patented invention. This ruling is contrary to decision, statute, policy, and constitutional right.[1] I must, respectfully, dissent from the court's endorsement of this ruling.

The *Zoltek* majority bases its decision on a statement in *Schillinger v. United States,* 155 U.S. 163, 30 Ct.Cl. 480, 15 S.Ct. 85, 39 L.Ed. 108 (1894), that since patent infringement is a tort, "cases sounding in tort are not cognizable in the Court of Claims." *Id.* at 169. The 1910 Patent Act expressly

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[1] "[N]or shall private property be taken for public use, without just compensation." U.S. Const. amend. V.

assigned to the Court of Claims jurisdiction of compensation for patent use by the United States, explaining that while the government cannot be enjoined from using an invention for governmental purposes, compensation must be paid. Soon thereafter the Court in *Crozier v. Fried. Krupp Aktiengesellschaft,* 224 U.S. 290, 32 S.Ct. 488, 56 L.Ed. 771 (1912) laid *Schillinger* to rest, establishing that the government's right to use patent property was based on eminent domain and subject to the Fifth Amendment: "we think there is no room for doubt that the [1910] statute makes full and adequate provision for the exercise of the power of eminent domain for which considered in its final analysis it was the purpose of the statute to provide." *Id.* at 307, 32 S.Ct. 488. It is curious indeed for this court, a century later, to resurrect *Schillinger's* long-rejected and long-overruled decision.

My concern with my colleagues' position starts with their apparent rejection of the premise that patents are property and subject to the Fifth Amendment. *See Florida Prepaid Postsecondary Educ. Bd. v. College Sav. Bank,* 527 U.S. 627, 642, 119 S.Ct. 2199, 144 L.Ed.2d 575 (1999) ("Patents, however, have long been considered a species of property."); *James v. Campbell,* 104 U.S. 356, 26 L.Ed. 786 (1881) ("letters-patent for a new invention or discovery in the arts, confers upon the patentee an exclusive property in the patented invention"); *Cammeyer v. Newton,* 94 U.S. 225, 226, 24 L.Ed. 72 (1876) ("the right of the [patent] holder is as much entitled to protection as any other property"); *Consol. Fruit-Jar Co. v. Wright,* 94 U.S. 92, 96, 24 L.Ed. 68 (1876) ("A patent for an invention is as much property as a patent for land.").

Almost a century of precedent has implemented the right of patentees to the remedies afforded to private property taken for public use. There is no basis today to reject this principle. Indeed, even *Schillinger* was decided on a quite different ground, the Court simply observing that patent infringement is a tort and that the Tucker Act, as then written, dealt only with contracts. ***1337***Schillinger,* 155 U.S. at 168, 15

S.Ct. 85. *Schillinger* did not change the property status of patents and did not discuss constitutional principles; the only issue was whether the Court of Claims had jurisdiction under the Tucker Act. The Patent Act of 1910 assigned jurisdiction to the Court of Claims:

> That whenever an invention described in and covered by a patent of the United States shall hereafter be used by the United States without license of the owner thereof or lawful right to use the same, such owner may recover reasonable compensation for such use by *suit in the Court of Claims .... Provided further,* That in any such suit the United States may avail itself of any and all defenses, general or special, which might be pleaded by a defendant in an action for infringement, as set forth in Title Sixty of the Revised Statutes, or otherwise; ...

Pub.L. No. 61-305, 36 Stat. 851 (1910). The legislative proceedings of the 1910 Act emphasized that the unauthorized use of a patented invention by the government warrants just compensation on constitutional principles. As the 1910 Patent bill (H.R.24649) was being considered, Rep. Frank Dunklee Currier (N.H.), Chairman of the House Committee on Patents, explained that although patents were property, the only remedy for governmental infringement was by appeal to Congress. Chairman Currier placed the following statement in the legislative record:

> The status of a patent as private property, which even the Government is prohibited from taking for public use without compensation (amendment to the Constitution, Article V) has been declared and redeclared in many opinions by the Supreme Court of the United States ... But it has been held, also, that in the absence of an express contract between the owner and the Government, or of transactions between them from which an agreement by the Government to pay a reasonable royalty

> must be implied, the patentee has no remedy at law or by executive action, and must obtain relief, if at all, by appeal to Congress. *Schillinger v. United States,* 155 U.S. 163, 15 S.Ct. 85....

45 *Cong. Rec.* 8755, 8769 (June 22, 1910). Several floor statements stressed the principle of providing remedy in the Court of Claims, and the Report of the House Committee on Patents stated:

> In no civilized country, so far as the committee is informed, except Russia and the United States, can the Government appropriate an invention without paying a fair price for it.... The Court of Claims now has no jurisdiction to award a compensation for its use of a patent except when such use is under a contract, express or implied. The infringement or unauthorized use of a patent is a tort. Our only purpose is to extend the jurisdiction of that court so that it may entertain suits and award compensation to the owners of patents in cases where the use of the invention by the United States is unauthorized and unlawful; in short, to give the court in patent cases, in addition to the jurisdiction it has now in matters of contract, jurisdiction in cases of tort.

H.R. Comm. Rep. No. 61-1288, at 1, 2-3 (1910). The Report emphasized that the 1910 Act enlarged the jurisdiction of the Court of Claims to include claims under the Tucker Act based on a violation of the Fifth Amendment:

> The purpose of this bill is to enlarge the jurisdiction of the Court of Claims so that said court may entertain suits against the United States for the infringement or unauthorized use of a patented invention, in certain cases, and ***1338** award reasonable compensation to the owner of the patent.

Id. at 1. This assignment is codified at 28 U.S.C. § 1498(a):

> § 1498(a) Whenever an invention described in and covered by a patent of the United States is used or manufactured by or for the United States without license of the owner thereof or lawful right to use or manufacture the same, the owner's remedy shall be by *action against the United States in the United States Court of Federal Claims* for the recovery of his reasonable and entire compensation for such use and manufacture....

There can be no doubt that the unlicenced use of a patented invention by the United States is remediable in the Court of Federal Claims. This principle has been applied in decades of precedent. This court's statement that we are "bound by *Schillinger*" to hold that the Court of Federal Claims has no jurisdiction of patent claims against the government, Zoltek, 442 F.3d at 1350, is almost a century out of date.

The panel majority also produces the anomalous result that patent property receives less protection from the Constitution than other forms of intellectual property, in conflict with principles and precedent. In *Ruckelshaus v. Monsanto Company,* 467 U.S. 986, 104 S.Ct. 2862, 81 L.Ed.2d 815 (1984) the Court held that a trade secret is constitutionally protected property, and a claim for its taking is within Tucker Act cognizance:

> "Although this Court never has squarely addressed the question whether a person can have a property interest in a trade secret, which is admittedly intangible, the Court has found other kinds of intangible interests to be property for purposes of the Fifth Amendment's Taking Clause." *See, e.g., Armstrong v. United States,* 364 U.S. 40, 44, 46, 80 S.Ct. 1563, 4 L.Ed.2d 1554 (1960) (materialman's lien provided for under Maine law protected by Taking Clause); *Louisville Joint Stock Land*

> *Bank v. Radford,* 295 U.S. 555, 596-602, 55 S.Ct. 854, 79 L.Ed. 1593 (1935) (real estate lien protected); *Lynch v. United States,* 292 U.S. 571, 579, 54 S.Ct. 840, 78 L.Ed. 1434 (1934) (valid contracts are property within meaning of the Taking Clause)....

467 U.S. at 1003, 104 S.Ct. 2862. That patent rights are property rights, entitled to just compensation when taken by the United States, is not subject to revision at this late date. The premises as explained in 1910 remain intact, as explained in the record of that enactment:

> *Rep. Dalzell.* But if the Government, through an authorized officer, has seen fit to appropriate a patent of a citizen without making any contract with him, or under circumstances that no implied contract can be inferred, then this law proposes to give him a remedy. It proposes to put him on the same footing that every other citizen is on who is not a patentee; that is, to give him the right to recover for property that has been taken from him by due process of law. And every time that the United States Government assumes to take forcibly, without the consent of the owner, a patented process, it violates the constitutional provision which says no man's property shall be taken without compensation and without due process of law.

45 *Cong. Rec.* 8755 at 8780.

I am concerned that my colleagues have strayed, for their holding that the issues raised by the asserted violation of patent rights are not within the jurisdiction of the Court of Federal Claims is contrary to clear statutory text and long-resolved application of constitutional remedy. I respectfully*1339 dissent from the court's decision not to review this holding *en banc.*

DYK, Circuit Judge, concurring in the denial of the petition for rehearing en banc, with whom GAJARSA, Circuit Judge, joins.

I agree that this case does not warrant *en banc* review and write briefly to note that the dissent has misread the majority panel opinion.

The dissent suggests that the majority opinion here leaves private parties without an effective remedy for patent misuse against the government. With respect, this is not correct. As the panel majority holds, following prior decisions of this court, private parties have a right of action against the government for unauthorized use of a patent pursuant to 28 U.S.C. § 1498 (2000). What the panel majority holds is that (1) the rights against the United States under section 1498 are not greater than the rights against private parties in a suit for patent infringement; (2) there would be no claim for infringement against a private party under the circumstances of this case; and (3) (as the Supreme Court held in *Schillinger v. United States*, 155 U.S. 163, 169, 30 Ct.Cl. 480, 15 S.Ct. 85, 39 L.Ed. 108 (1894)) Congress has not created a separate parallel takings remedy in the Court of Federal Claims. We think it clear that, in enacting section 1498, Congress did not overrule *Schillinger* by conferring jurisdiction over patent takings claims against the government, nor has the Supreme Court overruled *Schillinger*.

This decided lack of interest by the Congress and the Supreme Court in creating a takings remedy is perhaps not surprising given the fact that patent rights are created only by federal statute; that a Congressional decision to limit those rights is difficult to characterize as a taking of established property rights; and that Congress has in most situations created a right to sue the government for infringement damages equivalent to the right to sue private parties. The panel decision here, in rejecting the constitutional claim and in finding

no infringement, is faithful to section 1498, to the decisions of the Supreme Court, and to the decisions of this court.